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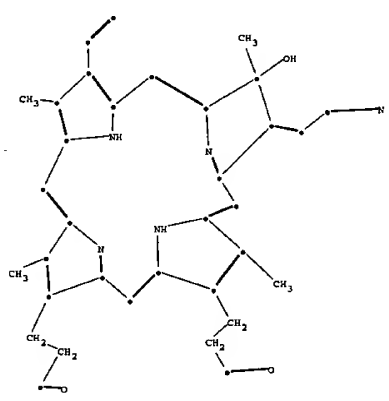
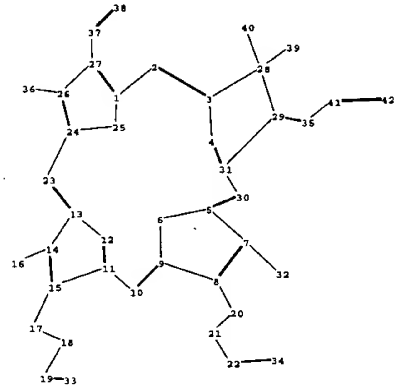
* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4	Apr 09	ZDB will be removed from STN
NEWS 5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 9	Jun 03	New e-mail delivery for search results now available
NEWS 10	Jun 10	MEDLINE Reload
NEWS 11	Jun 10	PCTFULL has been reloaded
NEWS 12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS 13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS 14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS 15	Jul 30	NETFIRST to be removed from STN
NEWS 16	Aug 08	CANCERLIT reload
NEWS 17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18	Aug 08	NTIS has been reloaded and enhanced
NEWS 19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 23	Sep 03	JAPIO has been reloaded and enhanced
NEWS 24	Sep 16	Experimental properties added to the REGISTRY file
NEWS 25	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 26	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 27	Oct 21	EVENTLINE has been reloaded
NEWS 28	Oct 24	BEILSTEIN adds new search fields
NEWS 29	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 30	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS 31	Nov 18	DKILIT has been renamed APOLLIT
NEWS 32	Nov 25	More calculated properties added to REGISTRY
NEWS 33	Dec 02	TIBKAT will be removed from STN
NEWS 34	Dec 04	CSA files on STN
NEWS 35	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36	Dec 17	TOXCENTER enhanced with additional content
NEWS 37	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 38	Dec 30	ISMEC no longer available
NEWS 39	Jan 13	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 40	Jan 21	NUTRACEUT offering one free connect hour in February 2003
NEWS 41	Jan 21	PHARMAML offering one free connect hour in February 2003
NEWS 42	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC

NEWS EXPRESS	January 6 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS	STN Operating Hours Plus Help Desk Availability

C:\STNEXP4\QUERIES\889698.str

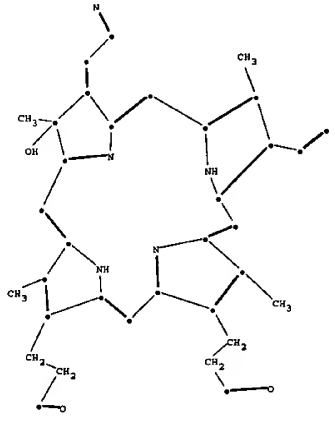


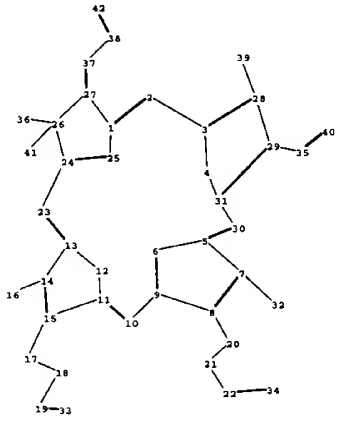


chain nodes :
16 17 18 19 20 21 22 32 33 34 35 36 37 38 39 40 41 42
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 23 24 25 26 27 28 29 30 31
chain bonds :
7-32 8-20 14-16 15-17 17-18 18-19 19-33 20-21 21-22 22-34 26-36 27-37 28-39
28-40 29-35 35-41 37-38 41-42
ring bonds :
1-2 1-25 1-27 2-3 3-4 3-28 4-31 5-7 5-6 5-30 6-9 7-8 8-9 9-10 10-11 11-12
11-15 12-13 13-14 13-23 14-15 23-24 24-25 24-26 26-27 28-29 29-31 30-31
exact/norm bonds :
1-25 3-28 5-6 6-9 11-15 13-14 14-15 19-33 22-34 24-25 28-29 28-39 29-31 41-42
exact bonds :
7-32 8-20 14-16 15-17 17-18 18-19 20-21 21-22 26-36 27-37 28-40 29-35 35-41
37-38
normalized bonds :
1-2 1-27 2-3 3-4 4-31 5-7 5-30 7-8 8-9 9-10 10-11 11-12 12-13 13-23 23-24
24-26 26-27 30-31

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
21:CLASS 22:CLASS 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom
31:Atom 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS
40:CLASS 41:CLASS 42:CLASS

C:\STNEXP4\QUERIES\889698b.str





chain nodes :
16 17 18 19 20 21 22 32 33 34 35 36 37 38 39 40 41 42
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 23 24 25 26 27 28 29 30 31
chain bonds :
7-32 8-20 14-16 15-17 17-18 18-19 19-33 20-21 21-22 22-34 26-36 26-41 27-37
28-39 29-35 35-40 37-38 38-42
ring bonds :
1-2 1-25 1-27 2-3 3-4 3-28 4-31 5-7 5-6 5-30 6-9 7-8 8-9 9-10 10-11 11-12
11-15 12-13 13-14 13-23 14-15 23-24 24-25 24-26 26-27 28-29 29-31 30-31
exact/norm bonds :
1-27 3-4 4-31 5-7 7-8 8-9 11-12 12-13 19-33 22-34 24-26 26-27 26-41 38-42
exact bonds :
7-32 8-20 14-16 15-17 17-18 18-19 20-21 21-22 26-36 27-37 28-39 29-35 35-40
37-38
normalized bonds :
1-2 1-25 2-3 3-28 5-6 5-30 6-9 9-10 10-11 11-15 13-14 13-23 14-15 23-24 24-25
28-29 29-31 30-31

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
21:CLASS 22:CLASS 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom
31:Atom 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS
40:CLASS 41:CLASS 42:CLASS

```
 NEWS INTER     General Internet Information
 NEWS LOGIN     Welcome Banner and News Items
 NEWS PHONE     Direct Dial and Telecommunication Network Access to STN
 NEWS WWW       CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

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FILE 'HOME' ENTERED AT 13:58:39 ON 30 JAN 2003

=> fil reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.42       0.42

FILE 'REGISTRY' ENTERED AT 13:59:46 ON 30 JAN 2003
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   28 JAN 2003  HIGHEST RN 482573-45-5
DICTIONARY FILE UPDATES:  28 JAN 2003  HIGHEST RN 482573-45-5

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end


=> screen 966 AND 1006

L1    SCREEN CREATED

=> screen 1821 OR 1822 OR 1823 OR 1824

L2    SCREEN CREATED

=>
```
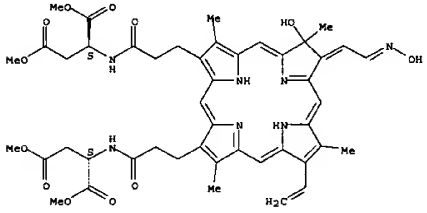

```
Uploading C:\STNEXP4\QUERIES\889698b.str

L3      STRUCTURE UPLOADED

=> que L3 AND L1 AND L2

L4   QUE L3 AND L1 AND L2

=> d
L4 HAS NO ANSWERS
L1              SCR 966 AND 1006
L2              SCR 1821 OR 1822 OR 1823 OR 1824
L3              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L4              QUE  ABB=ON  PLU=ON  L3 AND L1 AND L2


=> s l4
SAMPLE SEARCH INITIATED 14:00:11 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      5 TO ITERATE

100.0% PROCESSED       5 ITERATIONS                                1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            5 TO      234
PROJECTED ANSWERS:               1 TO       80

L5            1 SEA SSS SAM L3 AND L1 AND L2

=> s l4 full
FULL SEARCH INITIATED 14:00:16 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    108 TO ITERATE

100.0% PROCESSED     108 ITERATIONS                               11 ANSWERS
SEARCH TIME: 00.00.01

L6           11 SEA SSS FUL L3 AND L1 AND L2

=> d scan
```

L6 11 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetramethyl ester (9CI)
MF C46 H53 N7 O12

Absolute stereochemistry.
Double bond geometry unknown.



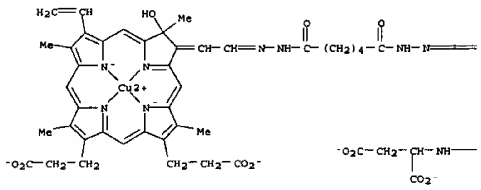
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

```
=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end


=> screen 966 AND 1006

L7    SCREEN CREATED

=> screen 1821 OR 1822 OR 1823 OR 1824

L8    SCREEN CREATED

=>
Uploading C:\STNEXP4\QUERIES\889698.str

L9      STRUCTURE UPLOADED

=> que L9 AND L7 AND L8

L10  QUE L9 AND L7 AND L8

=> d
L10 HAS NO ANSWERS
L7              SCR 966 AND 1006
L8              SCR 1821 OR 1822 OR 1823 OR 1824
L9              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L10             QUE  ABB=ON  PLU=ON  L9 AND L7 AND L8


=> s l10
SAMPLE SEARCH INITIATED 14:01:13 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      5 TO ITERATE

100.0% PROCESSED       5 ITERATIONS                              2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            5 TO      234
PROJECTED ANSWERS:               2 TO      124

L11           2 SEA SSS SAM L9 AND L7 AND L8

=> s l10 full
FULL SEARCH INITIATED 14:01:19 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    108 TO ITERATE

100.0% PROCESSED     108 ITERATIONS                            63 ANSWERS
SEARCH TIME: 00.00.01

L12          63 SEA SSS FUL L9 AND L7 AND L8

=> d scan
```

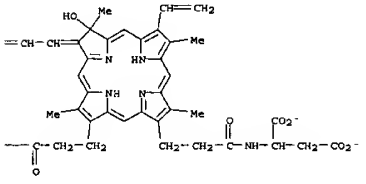
L12 63 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Cuprate(6-), [7-[[[6-[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]-1,6-dioxohexyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, hexahydrogen, (SP-4-2)- (9CI)
MF C82 H80 Cu N14 O18 . 6 H
CI CCS

PAGE 1-A



●6 H+

PAGE 1-B



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

L12 63 ANSWERS REGISTRY COPYRIGHT 2003 ACS (Continued)

```
=> fil .search
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   296.70     297.12

FILE 'MEDLINE' ENTERED AT 14:01:41 ON 30 JAN 2003

FILE 'CAPLUS' ENTERED AT 14:01:41 ON 30 JAN 2003
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FILE 'EMBASE' ENTERED AT 14:01:41 ON 30 JAN 2003
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=> d his

     (FILE 'HOME' ENTERED AT 13:58:39 ON 30 JAN 2003)

     FILE 'REGISTRY' ENTERED AT 13:59:46 ON 30 JAN 2003
L1              SCREEN 966 AND 1006
L2              SCREEN 1821 OR 1822 OR 1823 OR 1824
L3              STRUCTURE UPLOADED
L4              QUE L3 AND L1 AND L2
L5            1 S L4
L6           11 S L4 FULL
L7              SCREEN 966 AND 1006
L8              SCREEN 1821 OR 1822 OR 1823 OR 1824
L9              STRUCTURE UPLOADED
L10             QUE L9 AND L7 AND L8
L11           2 S L10
L12          63 S L10 FULL

     FILE 'MEDLINE, CAPLUS, BIOSIS, USPATFULL, EMBASE' ENTERED AT 14:01:41 ON
     30 JAN 2003

=> s l12 or l6
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

=> s l6 or l12
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

=> s l6 or l12
   2 FILES SEARCHED...
L13          28 L6 OR L12
```

```
=> dup rem l13
PROCESSING COMPLETED FOR L13
L14           26 DUP REM L13 (2 DUPLICATES REMOVED)

=> d ibib abs hitstr 1-
YOU HAVE REQUESTED DATA FROM 26 ANSWERS - CONTINUE? Y/(N):y
```

L14 ANSWER 1 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2003:54364 BIOSIS
DOCUMENT NUMBER: PREV200300054364
TITLE: Critical parameters in the cytotoxicity of photodynamic therapy using a pulsed laser.
AUTHOR(S): Seguchi, K.; Kawauchi, S.; Morimoto, Y. (1); Arai, T.; Asanuma, H.; Hayakawa, M.; Kikuchi, M.
CORPORATE SOURCE: (1) Department of Medical Engineering, National Defense Medical College, 3-2 Namiki, Tokorozawa, Saitama, 359-8513, Japan: moyam@interlink.or.jp Japan
SOURCE: Lasers in Medical Science, (2002) Vol. 17, No. 4, pp. 265-271. print. ISSN: 0268-8921.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Photodynamic therapy (PDT) using a pulsed laser is becoming popular, but its cytotoxic effect is still not clear. We therefore studied the cytotoxicity of PDT using a pulsed laser by changing its irradiation parameters and compared the degrees of cytotoxicity with those of PDT using continuous-wave (CW) light sources. Mice renal cell carcinoma cells were incubated with PAD-S31, a water-soluble photosensitiser of which the excitation peak is 670 nm, and were then irradiated with either a tungsten lamp, a CW diode laser, or a nanosecond pulsed Nd:YAG laser-based optical parametric oscillator system. When the PAD-S31 concentration and total light dose were constant (12 mug/ml and 40 J/cm2, respectively), the CW laser caused fluence rate-dependent decrease in cellular proliferation until the fluence rate reached 90 mW/cm2, at which point inhibition of cellular proliferation was more than 80%. The cytotoxicity then became almost saturated at fluence rates of >90 mW/cm2. On the other hand, inhibition of cellular proliferation in samples irradiated with the pulsed laser reached 80% even at the fluence rate of 15 mW/cm2, and, interestingly, the cytotoxicity paradoxically decreased with increase in the fluence rate. Moreover, the cytotoxicity in the PDT using the pulsed laser depended on the repetition rate. The inhibition of cellular proliferation by PDT using 30-Hz irradiation was greater than that by PDT using 5-Hz irradiation when the same fluence rates were used. These results suggest that the efficacy of PDT using a pulsed laser depends considerably on fluence rate and repetition rate.

L14 ANSWER 2 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2002:130618 BIOSIS
DOCUMENT NUMBER: PREV200200130618
TITLE: Sonodynamic therapy decreased neointimal hyperplasia after stenting in the rabbit iliac artery.
AUTHOR(S): Arakawa, Koh (1); Hagisawa, Kousuke; Kusano, Hiroyuki; Yoneyama, Satoru; Kurita, Akira; Arai, Tsunenori; Kikuchi, Makoto; Sakata, Isao; Umemura, Shin-ichirou; Ohsuzu, Fumitaka
CORPORATE SOURCE: (1) Department Medicine I, National Defense Medical College, 3-2, Namiki, Tokorozawa, Saitama, 359-8513: karakaws@me.ndmc.ac.jp Japan
SOURCE: Circulation, (January 15, 2002) Vol. 105, No. 2, pp. 149-151. http://circ.ahajournals.org/. print. ISSN: 0009-7322.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Background-In-stent restenosis remains a pivotal problem after coronary and peripheral stenting. Sonodynamic therapy inhibits tumor growth by means of cytotoxicity after the activation of sonochemical sensitizers by ultrasound. PAD-S31 is known to be a water-soluble, chlorin-derivative sonochemical sensitizer. We assessed the efficacy of sonodynamic therapy using this sensitizer on neointimal hyperplasia in a rabbit stent model. Methods and Results-Stents were implanted in the iliac arteries of 16 rabbits. A total of 32 stented arteries were randomized to sonodynamic therapy, control, ultrasound exposure, and PAD-S31 groups. One hour after the intravenous administration of PAD-S31 (25 mg/kg body weight), ultrasound energy (1 MHz, 0.3 W/cm2) was delivered transdermally to the sonodynamic therapy group. At 28 days, all stent sites were analyzed morphometrically. The size of the intimal cross-sectional area was smaller in the sonodynamic therapy group than in the control, ultrasound, and PAD-S31 groups (0.31+-0.07 versus 1.38+-0.47, 1.66+-0.71, and 1.61+-0.42 mm2, respectively; P<0.05). The ratio of the intimal and medial cross-sectional area was smaller in the sonodynamic therapy group than in the control, ultrasound, and PAD-S31 groups (0.71+-0.22 versus 2.53+-1.39, 2.48+-0.60, and 3.45+-1.42 mm2; P<0.05). Conclusions-Sonodynamic therapy with PAD-S31 is considered to be a feasible treatment modality for noninvasively inhibiting neointimal hyperplasia in a rabbit iliac stent model.

L14 ANSWER 3 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2002:408346 BIOSIS
DOCUMENT NUMBER: PREV200200408346
TITLE: Sonodynamic therapy reduced neointimal hyperplasia after stenting in rabbit iliac artery.
AUTHOR(S): Arakawa, Koh (1); Hagisawa, Kousuke (1); Kusano, Hiroyuki (1); Yoneyama, Satoru (1); Kurita, Akira (1); Arai, Tunenori (1); Kikuchi, Makoto (1); Umemura, Shin-ichirou (1); Sakata, Isao (1); Ohsuzu, Fumitaka (1)
CORPORATE SOURCE: (1) National Defense Medical College, Tokorozawa Japan
SOURCE: Journal of the American College of Cardiology, (March 6, 2002) Vol. 39, No. 5 Supplement A, pp. 68A. http://www.cardiosource.com/config/jacc/default.htm. print.
Meeting Info.: 51st Annual Scientific Session of the American College of Cardiology Atlanta, GA, USA March 17-20, 2002
ISSN: 0735-1097.
DOCUMENT TYPE: Conference
LANGUAGE: English

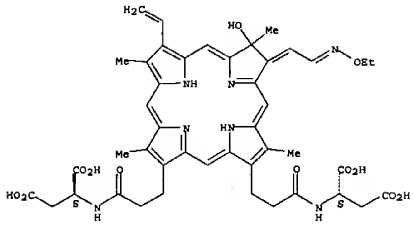
L14 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:416945 CAPLUS
DOCUMENT NUMBER: 135:33409
TITLE: Preparation of porphyrin compounds for photodynamic diagnosis and therapy
INVENTOR(S): Sakata, Isao; Nakajima, Susumu; Nakae, Yoshinori
PATENT ASSIGNEE(S): Photochemical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001040234	A1	20010607	WO 2000-JP8386	20001129
W: AU, CA, JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1148058	A1	20011024	EP 2000-977993	20001129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2003017112	A1	20030123	US 2001-889698	20010720
PRIORITY APPLN. INFO.:			JP 1999-339330 A	19991130
			WO 2000-JP8386 W	20001129

AB Porphyrin compds. [e.g., 13,17-bis[(1,2-dicarboxyethyl)carbamoylethyl]-3-ethenyl-7-hydroxy-8-ethoxyiminoethylidene-2,7,12,18-tetramethylporphyrin], useful in photodynamic diagnosis and therapy of cancer in animals, are disclosed and biol. tested.
IT **189619-79-2P 343627-42-9P 343627-43-0P 343627-46-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of porphyrin compds. for photodynamic diagnosis and therapy)
RN 189619-79-2 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7-[(ethoxyimino)ethylidene]-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

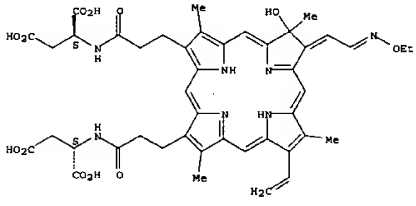
Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 343627-42-9 CAPLUS
CN L-Aspartic acid,
N,N'-[[13-ethenyl-8-[(ethoxyimino)ethylidene]-7,8-dihydro-7-hydroxy-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 343627-43-0 CAPLUS
CN L-Aspartic acid,
N,N'-[[13-ethenyl-8-[(ethoxyimino)ethylidene]-7,8-dihydro-7-hydroxy-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

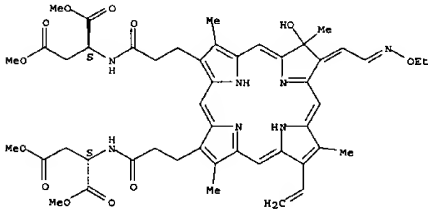
Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

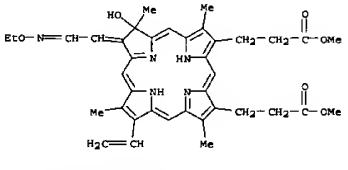
IT **343627-39-4P 343627-40-7P 343627-41-8P**
343627-44-1P 343627-45-2P 343627-47-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of porphyrin compds. for photodynamic diagnosis and therapy)

RN 343627-39-4 CAPLUS
CN L-Aspartic acid,
N,N'-[[13-ethenyl-8-[(ethoxyimino)ethylidene]-7,8-dihydro-7-hydroxy-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetramethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

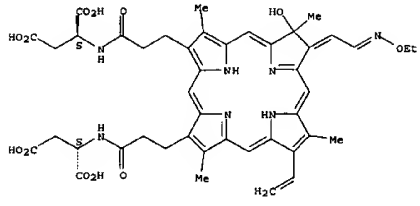


RN 343627-40-7 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 13-ethenyl-8-[(ethoxyimino)ethylidene]-7,8-dihydro-7-hydroxy-3,7,12,17-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)



RN 343627-41-8 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 13-ethenyl-8-[(ethoxyimino)ethylidene]-7,8-dihydro-7-hydroxy-3,7,12,17-tetramethyl- (9CI) (CA INDEX NAME)

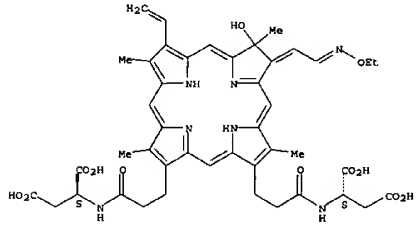
L14 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



●4 Na

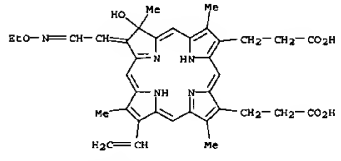
RN 343627-46-3 CAPLUS
CN L-Aspartic acid,
N,N'-[[12-ethenyl-7-[(ethoxyimino)ethylidene]-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

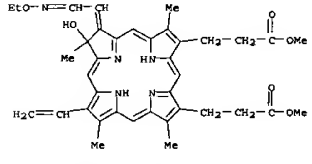


●4 Na

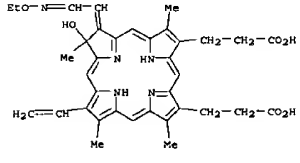
L14 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 343627-44-1 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7-[(ethoxyimino)ethylidene]-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)



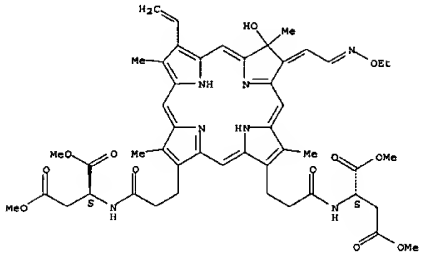
RN 343627-45-2 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7-[(ethoxyimino)ethylidene]-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)



RN 343627-47-4 CAPLUS
CN L-Aspartic acid,
N,N'-[[12-ethenyl-7-[(ethoxyimino)ethylidene]-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetramethyl ester (9CI) (CA INDEX NAME)

L14 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

Absolute stereochemistry.
Double bond geometry unknown.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

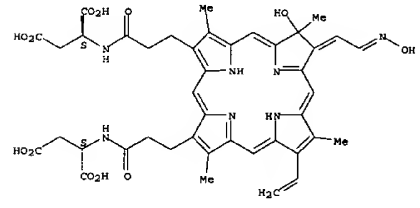
FORMAT

L14 ANSWER 5 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:523178 BIOSIS
DOCUMENT NUMBER: PREV200100523178
TITLE: PDT to monkey CNV with ATX-S10(Na): Inappropriateness of early laser irradiation for selective occlusion.
AUTHOR(S): Obana, Akira (1); Gohto, Yuko; Kaneda, Kenji; Nakajima, Susumu; Miki, Tokuhiko
CORPORATE SOURCE: (1) Department of Ophthalmology and Visual Sciences, Osaka City University Graduate School of Medicine, 1-4-3 Asahimachi Abeno-ku, Osaka City, 545-8585: akira-kun@med.osaka-cu.ac.jp Japan
SOURCE: IOVS, (October, 2001) Vol. 42, No. 11, pp. 2639-2645. print.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English
AB PURPOSE: There is controversy about which mode of laser irradiation, early irradiation with low-dose photosensitizer or late irradiation with high-dose, benefits the selective occlusion of choroidal neovascularization (CNV) in photodynamic therapy (PDT). In this study, using an amphiphilic photosensitizer, 13,17-bis (1-carboxypropionyl) carbamoylethyl-8-etheny-2-hydroxy-3-hydroxyiminoethylidene-2,7,12,18-tetraethyl porphyrin sodium (ATX-S10(Na); Photochemical Inc., Okayama, Japan), photodynamic and adverse effects of early irradiation on CNV-bearing monkey eyes were investigated. METHODS: Experimentally induced CNV lesions and normal retina were irradiated with a diode laser (670-nm wavelength) at a dose of 1 to 90 J/cm2 at 1 to 19 minutes after intravenous injection of 2 mg/kg body weight of ATX-S10(Na). Vascular occlusion and CNV recurrence were evaluated by fluorescein and indocyanine green angiography and histologic analysis, until 4 weeks after irradiation. RESULTS: Of 45 different conditions, 23 did not induce CNV closure, 20 provided both CNV occlusion and retinal vessel damage, and 2 achieved selective CNV occluaion without retinal vascular injury. Recurrence of CNV was induced in 19 of 22 CNV-occluding conditions. ATX-S10(Na) angiography showed that dyes were similarly distributed between normal vessels and CNV at early time periods after injection, whereas they were preferentially accumulated in CNV after 30 minutes. CONCLUSIONS: In PDT with ATX-S10(Na), irradiation within 20 minutes of dye injection failed to induce selective CNV occlusion, probably because there is no significant difference in the biodistribution of dye between CNV and retinal vessels. It also caused frequent CNV recurrence after extensive inflammation in the irradiated retina.

L14 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:310725 CAPLUS
DOCUMENT NUMBER: 138:35335
TITLE: The advantage of porphyrin for BNCT from the point of view of cell cycle
AUTHOR(S): Shibata, Yasushi; Matsumura, Akira; Yoshida, Fumiyo; Yamamoto, Tetsuya; Nakai, Kei; Nose, Tadao; Sakata, Isao; Nakajima, Susumu
CORPORATE SOURCE: Department of Neurosurgery, University of Tsukuba, Ibaraki, 305, Japan
SOURCE: Frontiers in Neutron Capture Therapy, [Proceedings of the International Symposium on Neutron Capture Therapy for Cancer], 8th, Los Angeles, CA, United States, Sept. 13-18, 1998 (2001), Meeting Date 1998, Volume 2, 1089-1092. Editor(s): Hawthorne, M. Frederick; Shelly, Kenneth; Wiersema, Richard J. Kluwer Academic/Plenum Publishers: New York, N. Y. CODEN: 69CMQV; ISBN: 0-306-46442-X
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The tumor cell uptake of porphyrin in relation to cell cycle was studied using flow cytometry system in in vitro glioma cell lines. Four established brain tumor cell lines were cultured in RPMI 1640 medium or Earle's MEM soln. at 37.degree. in an atm. of 5% CO2 in air. The 1 .times. 105 cells of each cell lines was analyzed with flow cytometry. The study showed porphyrin uptake in all cells, regardless of the phase of the cell cycle. However, those in G0/G1 phase showed moderate uptake of porphyrin and those in the G2/M phase showed higher uptake. Borocaptate sodium (BSH) and boronophenylalanine (BPA) are two major boron compds. used in boron neutron capture therapy. The tumor control effect of BNCT using BPA was better than that using BSH. Cancer therapy requires cytotoxic or cytocidal effects not only on proliferating G2/M cells but also on G0/G1 cells which may enter the active cell cycle. The targets of BNCT using porphyrin compds. are cells at rest and cells undergoing cell division. On BNCT using porphyrin compds. a more lethal effect is expected for cells in the G2/M phase.
IT **189357-37-7**, ATX-S10-Na
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(brain tumor uptake of porphyrin deriv. in relation to cell cycle)
RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



●4 Na

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

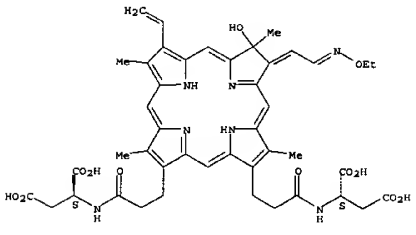
L14 ANSWER 7 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:276863 BIOSIS
DOCUMENT NUMBER: PREV200100276863
TITLE: In vitro photodynamic effects of ATX-S10(Na) and mode of cell death on vascular endothelial cells.
AUTHOR(S): Gohto, Y. (1); Obana, A. (1); Huang, Y. (1); Nakajima, S.
CORPORATE SOURCE: (1) Department of Ophthalmology, Osaka City University Medical School, Osaka Japan
SOURCE: IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S437. print. Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L14 ANSWER 8 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:288222 BIOSIS
DOCUMENT NUMBER: PREV200100288222
TITLE: Subcellular localization of three different photosensitizers in vascular endothelial cells.
AUTHOR(S): Obana, A. (1); Gohto, Y. (1); Nakajima, S.
CORPORATE SOURCE: (1) Department of Ophthalmology, Osaka City University Medical School, Osaka Japan
SOURCE: IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S436. print. Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L14 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:449518 CAPLUS
DOCUMENT NUMBER: 136:66285
TITLE: Influence of light intensity and repetition rate of nanosecond laser pulses on photodynamic therapy with PAD-S31 in mouse renal carcinoma cell line in vitro: study for oxygen consumption and photobleaching
AUTHOR(S): Kawauchi, Satoko; Arai, Tsunenori; Seguchi, Kenji; Asanuma, Hiroshi; Sato, Shunichi; Kikuchi, Makoto; Takemura, Takeshi; Sakata, Isao; Nakajima, Susumu
CORPORATE SOURCE: Dept. of Medical Engineering, National Defenae Medical College, Japan
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2001), 4248(Optical Methods for Tumor Treatment and Detection: Mechanisms and Techniques in Photodynamic Therapy X), 138-143
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In order to det. the optimum light irradn. condition to treat deep lesions, we studied influence of light intensity and repetition rate of nanosecond light pulses on photodynamic therapy (PDT) with PAD-S31 (13,17-bis-1-carboxypropionyl-carbamoylethyl-3-ethenyl-8-ethoxyiminoethylidene-7-hydroxy-2,7,12,18-tetramethyl porphyrin sodium) to mouse renal carcinoma cell line (Renca) in vitro. The oxygen consumption and photobleaching were measured to explain this influence. We used the short light pulses (.lambda. : 670 nm, FWHM: 5 ns) at the peak intensity of 0.6, 1.8 and 3.6 MW/cm2, repetition rate of 30 and 5 HZ, and used the total fluence of 40 J/cm2. We obtained over 80% cell growth inhibition rate of 0.6 MW/cm2 and 5 Hz. This irradn. condition was the lowest peak intensity and lowest repetition rate in our study.
IT **343627-46-3**, PAD-S 31
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (photosensitizer; laser intensity and repetition rate effect on PAD-S31 PDT renal carcinoma: oxygen consumption and photobleaching study)
RN 343627-46-3 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7-[(ethoxyimino)ethylidene]-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



●4 Na

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

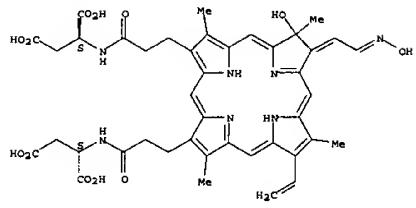
L14 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
ACCESSION NUMBER: 2000:908379 CAPLUS
DOCUMENT NUMBER: 134:218974
TITLE: Treatment parameters for selective occlusion of experimental corneal neovascularization by photodynamic therapy using a water soluble photosensitizer, ATX-S10(Na)
AUTHOR(S): Gohto, Yuko; Obana, Akira; Kanai, Masakazu; Nagata, Satoshi; Nakajima, Susumu; Miki, Tokuhiko
CORPORATE SOURCE: Department of Ophthalmology, Osaka City University Medical School, Osaka, Japan
SOURCE: Experimental Eye Research (2001), 72(1), 13-22
CODEN: EXERA6; ISSN: 0014-4835
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Time-dependent change of an accumulation of an amphiphilic photosensitizer, ATX-S10(Na) on rabbit corneal neovascularization (CoNV) was evaluated by angiog. using ATX-S10(Na) as a fluorescent dye on three rabbits. The angiog. showed that the dye accumulated on CoNV 3-5 h after dye injection when the dye in the iris was min. The results suggested 3-5 h after might be the optimal time to start photodynamic therapy (PDT) to occlude CoNV selectively without damage to the surrounding normal tissue such as the iris. Then the optimal treatment parameters in PDT using ATX-S10(Na) for selective occlusion of the CoNV were investigated on rabbit eyes. PDT was performed with two different time intervals between dye injection and laser irradn. of a diode laser (670 nm), different laser doses and three different dye doses on 21 animals. PDT performed immediately after dye injection selectively occluded CoNV with laser irradiations from 30.6 to 38.2 J cm-2and a 2 mg kg-1dose of ATX-S10(Na), as well as with 15.3 J cm-2and a 6 mg kg-1dose. PDT performed 4 h after dye injection with 107.0-152.8 J cm-2and a 6 mg kg-1dose, as well as with 38.2-53.5 J cm-2and a 12 mg kg-1dose was also effective. Although PDT performed either immediately or 4 h after ATX-S10(Na) injection selectively occluded CoNV, the width of the optimal range of radiant exposures seemed wider in PDT performed 4 h after dye injection. It is supposed that this result is assocd. with the difference of dye accumulation between in CoNV and in normal tissue as shown by the preaent angiog. findings. (c) 2001 Academic Press.

IT 189357-37-7, ATX-S10(Na)
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(selective occlusion of corneal neovascularization by photodynamic therapy with water sol. photosensitizer ATX-S10(Na))
RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
(Continued)



●4 Na

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 11 OF 26 USPATFULL
ACCESSION NUMBER: 2000:61593 USPATFULL
TITLE: Iminochlorinaspartic acid derivatives
INVENTOR(S): Hikida, Muneo, Saitama, Japan
Mori, Masahiko, Saitama, Japan
Sakata, Isao, Okayama, Japan
Nakajima, Susumu, Hokkaido, Japan
Takata, Hiroyuki, Okayama, Japan
PATENT ASSIGNEE(S): Wyeth Lederle Japan, Ltd., Japan (non-U.S. corporation)
Photochemical Co., Ltd., Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6063777		20000516	
	WO 9814753		19980409	
APPLICATION INFO.:	US 1999-269557		19990615	(9)
	WO 1997-JP3484		19970930	
			19990615	PCT 371 date
			19990615	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-278611	19961001

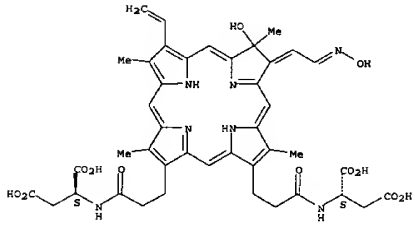
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
ASSISTANT EXAMINER: Sripada, Pavanaram K
LEGAL REPRESENTATIVE: Evenson, McKeown, Edwards & Lenahan, P.L.L.C.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 671
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides an iminochlorin aspartic acid derivative represented by the following formula (I): ##STR1## Wherein Asp represents an aspartic acid residue, or a pharmaceutically acceptable salt thereof. The compound of the present invention is useful as a photosensitizer for photophysico-chemical diagnosis and therapy of cancer, because it has a high accumulability to cancerous cells, reactivity to external energy and a cancerous cell destroying effect which is effective even against cancers developing in deep site, while it is rapidly excreted from normal cells and therefore causes no damage thereto.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 189357-36-6P 189357-37-7P 205760-27-6P 205760-28-7P 205760-29-8P 205760-30-1P
(prepn. of iminochlorinaspartic acid derive.)
RN 189357-36-6 USPATFULL
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

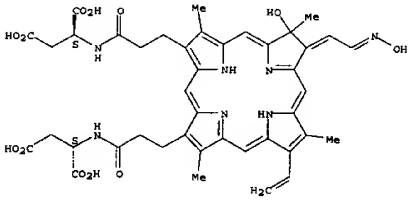
L14 ANSWER 11 OF 26 USPATFULL (Continued)



●4 Na

RN 189357-37-7 USPATFULL
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

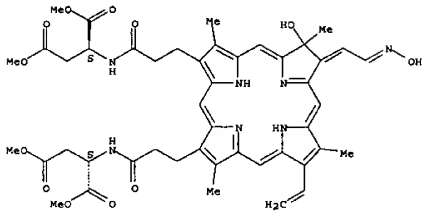


●4 Na

RN 205760-27-6 USPATFULL
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetramethyl ester (9CI) (CA INDEX

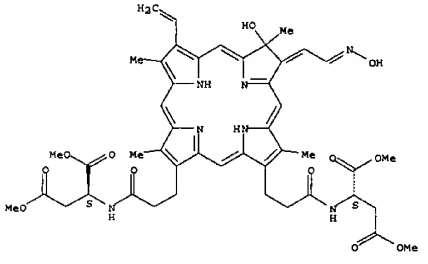
L14 ANSWER 11 OF 26 USPATFULL (Continued)
NAME)

Absolute stereochemistry.
Double bond geometry unknown.

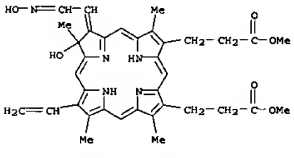


RN 205760-28-7 USPATFULL
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetramethyl ester (9CI) (CA INDEX NAME)

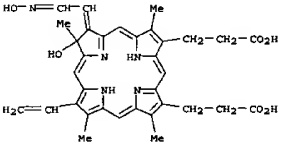
Absolute stereochemistry.
Double bond geometry unknown.



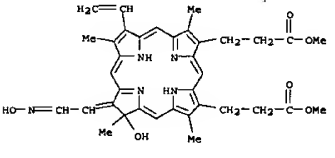
L14 ANSWER 11 OF 26 USPATFULL (Continued)
(prepn. of iminochlorinaspartic acid derivs.)
RN 28383-51-9 USPATFULL
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7,8-dihydro-8-hydroxy-7-[2-(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)



RN 150582-63-1 USPATFULL
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)

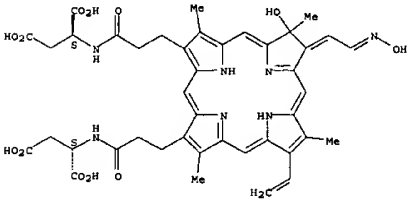


RN 157828-58-5 USPATFULL
CN 21H,23H-Porphine-2,18-dipropanoic acid, 13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)



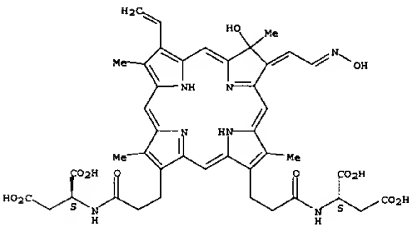
L14 ANSWER 11 OF 26 USPATFULL (Continued)
RN 205760-29-8 USPATFULL
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 205760-30-1 USPATFULL
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

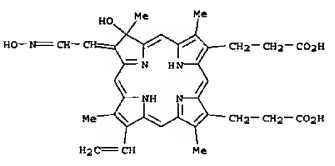
Absolute stereochemistry.
Double bond geometry unknown.



IT 28383-51-9P 150582-63-1P 157828-58-5P
205760-26-5P

L14 ANSWER 11 OF 26 USPATFULL (Continued)

RN 205760-26-5 USPATFULL
CN 21H,23H-Porphine-2,18-dipropanoic acid, 13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl- (9CI) (CA INDEX NAME)



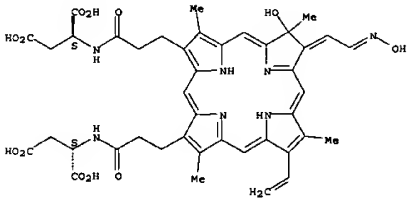
L14 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:627222 CAPLUS
DOCUMENT NUMBER: 133:292936
TITLE: In vitro plasma protein binding and cellular uptake of ATX-S10(Na), a hydrophilic chlorin photosensitizer
AUTHOR(S): Mori, Masahiko; Kuroda, Toyoshi; Obana, Akira; Sakata, Isao; Hirano, Toru; Nakajima, Susumu; Hikida, Muneo; Kumagai, Toshio
CORPORATE SOURCE: Medical Research Laboratories, Wyeth Lederle Japan, Ltd., Shiki, 353-8511, Japan
SOURCE: Japanese Journal of Cancer Research (2000), 91(8), 845-852
CODEN: JJCREP; ISSN: 0910-5050
PUBLISHER: Japanese Cancer Association
DOCUMENT TYPE: Journal
LANGUAGE: English

AB ATX-S10(Na), a hydrophilic chlorin photosensitizer having an absorption max. at 670 nm, is a candidate second-generation photosensitizer for photodynamic therapy (PDT) for cancer treatment. In this study, we examd. plasma protein binding, cellular uptake and subcellular targets of ATX-S10(Na) in vitro. Protein binding ratios of 50 .mu.g/mL ATX-S10(Na) in rat, dog and human plasma were 73.0%, 87.2% and 97.7%, resp. Gel filtration chromatog. revealed that 1 mg/mL ATX-S10(Na) bound mainly to high-d. lipoprotein (HDL) and serum albumin at the protein concn. of 0.4%, with binding ratios of 46% and 36%, resp. The free form of ATX-S10(Na) was mostly incorporated into T-Tn cells, and its cellular uptake was partially but significantly inhibited by endocytosis inhibitors such as phenylarsine oxide, chloroquine, monensin and phenylglyoxal, and by chilling the cells to 4 degree.C. However, ouabain, harmaline, sodium cyanide, probenecid and aspartic acid did not influence the uptake of ATX-S10(Na), suggesting that cellular uptake of ATX-S10(Na) was not related to sodium-potassium pump activity, sodium-dependent transporter activity, mitochondrial oxidative respiration, org. anion transporter activity or aspartic acid transporter activity. By fluorescence microscopy, lysosomal localization of ATX-S10(Na) was obsd. in T-Tn cells. However, electron microscopic observation revealed that many subcellular organelles such as mitochondria, endoplasmic reticulum, ribosomes, Golgi complex and plasma membrane were damaged by PDT using 25 .mu.g/mL ATX-S10(Na) soon after laser irradn. at 50 J/cm2, and tumor necrosis was rapidly induced. This result indicated that ATX-S10(Na) was widely distributed within the cell.

IT 189357-37-7, ATX S10(na)
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(plasma protein binding and cellular uptake of ATX-S10(Na))
RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L14 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)
Double bond geometry unknown.



●4 Na

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

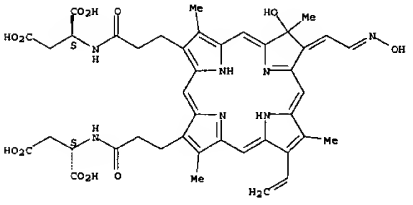
L14 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:618468 CAPLUS
DOCUMENT NUMBER: 133:263278
TITLE: Photodynamic therapy for experimental tumors using ATX-S10(Na), a hydrophilic chlorin photosensitizer, and diode laser
AUTHOR(S): Mori, Masahiko; Sakata, Isao; Hirano, Toru; Obana, Akira; Nakajima, Susumu; Hikida, Muneo; Kumagai, Toshio
CORPORATE SOURCE: Medical Research Laboratories, Wyeth Lederle Japan, Ltd., Shiki, 353-8511, Japan
SOURCE: Japanese Journal of Cancer Research (2000), 91(7), 753-759
CODEN: JJCREP; ISSN: 0910-5050
PUBLISHER: Japanese Cancer Association
DOCUMENT TYPE: Journal
LANGUAGE: English

AB ATX-S10(Na), a hydrophilic chlorin photosensitizer having an absorption max. at 670 nm, is a candidate second-generation photosensitizer for use in photodynamic therapy (PDT) for cancer treatment. The effectiveness of PDT using ATX-S10(Na) and a diode laser for exptl. tumors was evaluated in vitro and in vivo. In-vitro PDT using ATX-S10(Na) and the diode laser showed drug concn.-, laser dose- and drug exposure time-dependent cytotoxicity to various human and mouse tumor cell lines. In Meth-A sarcoma-implanted mice, optimal PDT conditions were found where tumors were completely eliminated without any toxicity. Against human tumor xenografts in nude mice, the combined use of 5 mg/kg ATX-S10(Na) and 200 J/cm2 laser irradn. 3 h after ATX-S10(Na) administration showed excellent anti-tumor activity, and its efficacy was almost the same as that of PDT using 20 mg/kg porfimer sodium and a 100 J/cm2 excimer dye laser 48 h after porfimer sodium injection. Microscopic observation of tumor tissues revealed that PDT using ATX-S10(Na) and the diode laser induced congestion, thrombus and degeneration of endothelial cells in tumor vessels, indicating that a vascular shutdown effect plays an important role in the anti-tumor activity of PDT using ATX-S10(Na) and the diode laser.

IT 189357-37-7, ATX-S10(Na)
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(cancer photodynamic therapy using hydrophilic chlorin photosensitizer ATX-S10 and diode laser)
RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



●4 Na

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

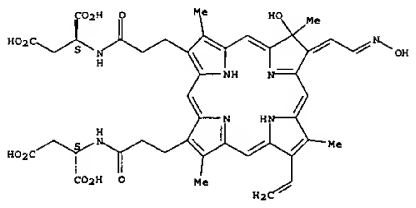
L14 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:405400 CAPLUS
DOCUMENT NUMBER: 133:263302
TITLE: Selective photodynamic effects of the new photosensitizer ATX-S10(Na) on choroidal neovascularization in monkeys
AUTHOR(S): Obana, Akira; Gohto, Yuko; Kanai, Masakazu; Nakajima, Susumu; Kaneda, Kenji; Miki, Tokuhiko
CORPORATE SOURCE: Department of Ophthalmology, Osaka City University Medical School, Osaka, Japan
SOURCE: Archives of Ophthalmology (Chicago) (2000), 118(5), 650-658
CODEN: AROPAW; ISSN: 0003-9950
PUBLISHER: American Medical Association
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Objective: To det. the optimal treatment variables for photodynamic therapy (PDT) with new photosensitizer ATX-S10(Na) (13,17-bis[1-carboxypropionyl] carbamoylethyl-8-ethenyl-2-hydroxy-3-hydroxyiminoethylidene-2,7,12,18-tetramethyl 6 porphyrin sodium) to induce selective occlusion of choroidal neovascularization (CNV) in nonhuman primate eyes. Methods: Exptl. CNV was induced in monkey eyes by laser photocoagulation, and PDT was performed in neovascularized and healthy eyes with different treatment variables. At 0 to 150 min after 4-, 8-, and 12-mg/kg of body wt. i.v. injections of ATX-S10(Na), a diode laser was irradiated at the dose of 1 to 127 J/cm2 (wavelength, 670 nm). Vascular occlusion induced by PDT was evaluated using fluorescein angiog., indocyanine green angiog., and histol. examn. at 1 day to 4 wk after irradn. Results: Selective occlusion of CNV without damage to healthy retinal and choroidal capillaries was achieved in the following conditions: 30 to 74 J/cm2 irradn. at 30 to 74 min after the 8-mg/kg injection, and 1 to 29 J/cm2 irradn. at 30 to 74 min or 30 to 74 J/cm2 irradn. at 75 to 150 min after the 12-mg/kg dye injection. Regrowth of CNV often occurred when the retina was heavily injured by excessive PDT. Conclusion: By using optimal treatment variables, PDT using ATX-S10(Na) induces selective occlusion of CNV in nonhuman primate eyes, providing the possibility of therapeutic application to the clin. practice. Clin. Relevance: Occlusion of CNV without direct damage to the sensory retina is useful to preserve visual acuity in patients with exudative age-related macular degeneration. A clin. trial of PDT using ATX-S10(Na) is desirable.

IT 189357-37-7, ATX-S10(Na)
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(photosensitizer ATX-S10(Na) selective photodynamic effects on choroidal neovascularization: preserving visual acuity in age-related macular degeneration)
RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX

L14 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)
NAME)

Absolute stereochemistry.
Double bond geometry unknown.



●4 Na

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

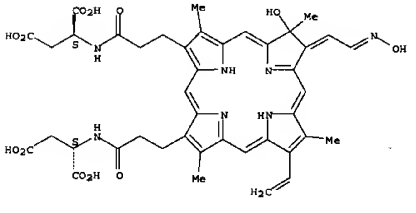
L14 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:622124 CAPLUS
DOCUMENT NUMBER: 134:292117
TITLE: Accumulation of Photosensitizer ATX-S10 (Na) in Experimental Corneal Neovascularization
AUTHOR(S): Gohto, Y.; Obana, A.; Kaneda, K.; Nakajima, S.; Takemura, T.; Miki, T.
CORPORATE SOURCE: Departments of Ophthalmology, Osaka City University School of Medicine, Osaka, Japan
SOURCE: Japanese Journal of Ophthalmology (2000), 44(4), 348-353
CODEN: JJOPA7; ISSN: 0021-5155
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Purpose: To det. the most appropriate time for laser irradn. to produce selective occlusion of new corneal vessels by photodynamic therapy (PDT) with a new photosensitizer, ATX-S10(Na). Methods: The time course of the plasma levels of ATX-S10(Na) and the degree of dye accumulation in the corneal neovascularization after i.v. administration was detd. in rabbit eyes. Plasma concn. of ATX-S10(Na) was analyzed by a spectrophotometer. The amt. of ATX-S10(Na) in the new corneal vessels was measured by nitrogen-pulsed laser spectrofluorometry. Frozen sections of neovascularized cornea and iris were obsd. by fluorescence microscopy. Results: Plasma ATX-S10(Na) concn. was highest 5 min after dye injection and rapidly decreased and reached almost zero at 24 h, indicating its prompt excretion from the body. The amt. of ATX-S10(Na) in the new corneal vessels as measured by nitrogen-pulsed laser spectrofluorometry increased and reached maximal level at 2 to 4 h. Under fluorescence microscopy, the dye was more abundantly localized in the wall of new corneal vessels than in the normal tissue at 2 to 4 h. Conclusion: These results indicate that laser irradn. between 2 and 4 h after dye injection is appropriate for selective PDT with ATX-S10(Na) for the occlusion of new corneal vessels.

IT 189357-37-7, ATX-S10(Na)
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(accumulation of photosensitizer ATX-S10 (Na) in corneal neovascularization)
RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



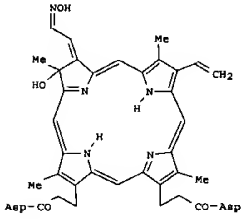
●4 Na

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:219813 CAPLUS
DOCUMENT NUMBER: 128:252741
TITLE: Preparation of iminochlorinaspartic acid derivatives
INVENTOR(S): Hikida, Muneo; Mori, Masahiko; Sakata, Isao; Nakajima, Susumu; Takata, Hiroyuki
PATENT ASSIGNEE(S): Lederle (Japan), Ltd., Japan; Toyo Hakka Kogyo Co., Ltd.; Hikida, Muneo; Mori, Masahiko; Sakata, Isao; Nakajima, Susumu; Takata, Hiroyuki
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9814453	A1	19980409	WO 1997-JP3484	19970930
W: AU, CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9743229	A1	19980424	AU 1997-43229	19970930
AU 713059	B2	19991125		
EP 945454	A1	19990929	EP 1997-941282	19970930
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
KR 2000048843	A	20000725	KR 1999-702842	19990401
US 6063777	A	20000516	US 1999-269557	19990615
PRIORITY APPLN. INFO.:			JP 1996-278611 A	19961001
			WO 1997-JP3484 W	19970930

GI

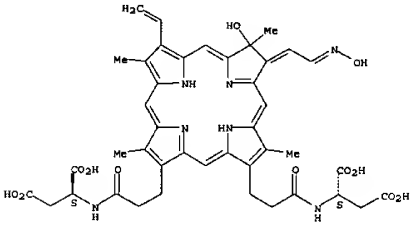


AB Iminochlorinaspartic acid deriva. I [Asp = aspartic acid residue] and their pharmacol. acceptable salts are prepd. These compds. are useful as photosensitizers in photophys. diagnosis and therapy for cancer and have the advantages of accumulating selectively in cancer cells, being sensitive to external energy, showing a cytocidal effect, and exerting a therapeutic effect even on a deep cancer while being quickly excreted from normal tissues without damaging the same. Thus, irradn. of protoporphyrin di-Me ester in CHCl3 for 1 wk gave an A, B ring positional isomeric mixt. of photoprotoporphyrin di-Me esters, which were sepd. by silica gel chromatog. These isomers were reacted with hydroxylamine hydrochloride to give the corresponding hydroxyimino derivs., which were hydrolyzed to the resp. carboxylic acids. These carboxylic acids were then reacted with aspartic acid di-Me ester to give the title compds. I (A, B ring positional isomers), which were hydrolyzed to the corresponding acids. In an in vitro study, the sodium salts of these acids at 6.25 .mu.M showed 57 and 19% inhibition of Hela cells. The distribution of I in the body of mice was also studied.

IT **189357-36-6P 189357-37-7P 205760-27-6P 205760-28-7P 205760-29-8P 205760-30-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of iminochlorinaspartic acid derivs.)

RN 189357-36-6 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

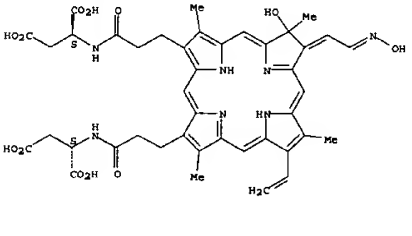
Absolute stereochemistry.
Double bond geometry unknown.



●4 Na

RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

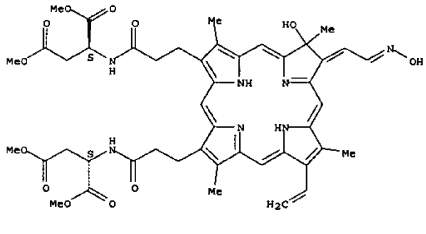
Absolute stereochemistry.
Double bond geometry unknown.



●4 Na

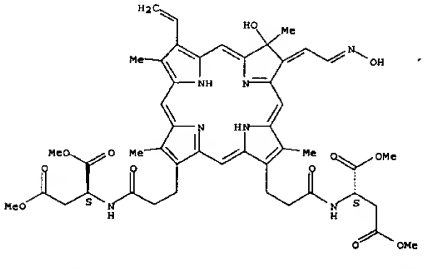
RN 205760-27-6 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetramethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



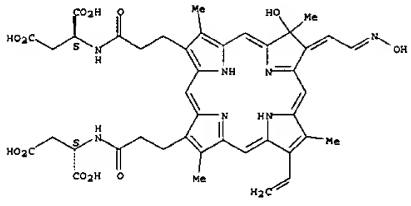
RN 205760-28-7 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetramethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



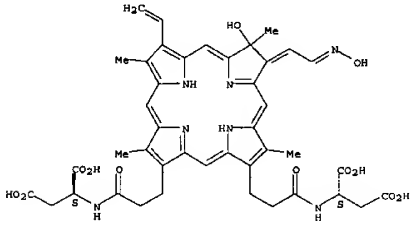
RN 205760-29-8 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

L14 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)
Absolute stereochemistry.
Double bond geometry unknown.



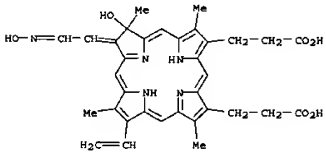
RN 205760-30-1 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

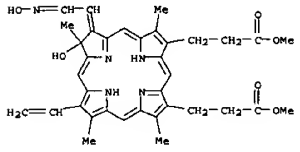


IT **28383-51-9P 150582-63-1P 157828-58-5P**
205760-26-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of iminochlorinaspartic acid derivs.)
RN 28383-51-9 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7,8-dihydro-8-hydroxy-7-

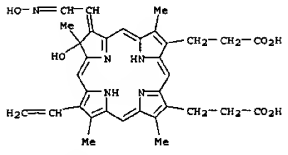
L14 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)
RN 205760-26-5 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl- (9CI) (CA INDEX NAME)



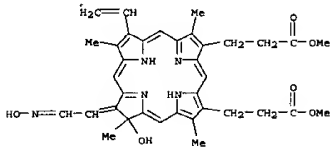
L14 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)
[2-(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)



RN 150582-63-1 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)



RN 157828-58-5 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)



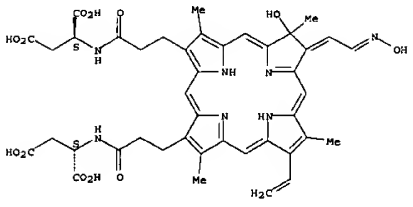
L14 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:79776 CAPLUS
DOCUMENT NUMBER: 130:278671
TITLE: Accumulation of a photosensitizer ATX-S 10 Na (II) in experimental corneal neovascularization
AUTHOR(S): Gohto, Yuko; Obana, Akira; Kaneda, Kenji; Nakajima, Susumu; Takamura, Takeshi; Miki, Tokuhiko
CORPORATE SOURCE: Department of Ophthalmology, School of Medicine, Osaka City University, Japan
SOURCE: Nippon Ganka Gakkai Zasshi (1998), 102(11), 724-730
CODEN: NGZAA6; ISSN: 0029-0203
PUBLISHER: Nippon Ganka Gakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB In order to det. the most appropriate time point for laser irradn. in photodynamic therapy with a new photosensitizer, ATX-S 10 Na (II), which produces selective occlusion of new vessels, we investigated the time course of plasma levels of ATX-S 10 Na (II) after i.v. administration and degree of dye accumulation in the corneal neovascularization in rabbit eyes. Plasma ATX-S 10 Na (II) concn. decreased rapidly after injection and became virtually undetectable at 24 h, indicating rapid excretion from the body. Nitrogen-pulsed laser spectrofluorometry demonstrated that the amt. of ATX-S 10 Na (II) in new corneal vessels increased and reached a max. level 2 to 4 h after dye injection. ATX-S 10 Na (II) was localized in the wall of new corneal vessels and in extravascular tissue 2 to 4 h after dye injection. These results indicate that the appropriate time for laser irradn. in selective PDT is between 2 and 4 h after dye injection, when a larger amt. of dye is accumulated in neovasculature tissue compared to normal tissue.

IT 189357-37-7, ATX-S 10 Na
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(accumulation of photosensitizer ATX-S 10 in corneal neovascularization)
RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

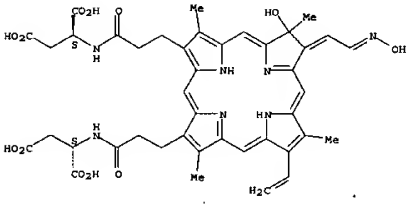
Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



●4 Na

L14 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



●4 Na

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L14 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:496728 CAPLUS
DOCUMENT NUMBER: 129:227550
TITLE: Therapeutic effect of interstitial photodynamic therapy using ATX-S10(Na) and a diode laser on radio-resistant SCCVII tumors of C3H/He mice
AUTHOR(S): Nakajima, S.; Sakata, I.; Hirano, T.; Takemura, T.
CORPORATE SOURCE: Division Surgical Operation, Asahikawa Medical College, Asahikawa, 078, Japan
SOURCE: Anti-Cancer Drugs (1998), 9(6), 539-543
CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER: Lippincott-Raven Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We examd. the effect of interstitial photodynamic therapy (PDT) with a new photosensitizer ATX-S10(Na). This photosensitizer showed the strongest therapeutic effect 2-4 h after administration and was rapidly excreted from individual organs except tumor and liver 24 h after i.v. injection. Microscopic histofluorescent imaging showed fluorescence of ATX-S10(Na) in the cytoplasm of the tumor cells, but not in nuclei and in the vascular wall. Irradn. of Liniac 30 Gly+20 Gly slightly reduced the tumor size, but all mice died of relapse within 60 days after irradn. In the PDT group, all tumors became non-palpable and healing was achieved in 50% of mice 120 days after PDT.

IT 189357-37-7, ATX-S 10(Na)
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(interstitial photodynamic therapy using ATX-S10(Na) and a diode laser of radioresistant tumors in mice)

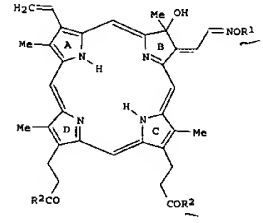
RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:643147 CAPLUS
DOCUMENT NUMBER: 127:50475
TITLE: Preparation of porphyrins as sensitizers in cancer photophysicochemical therapy
INVENTOR(S): Sakata, Isao; Nakajima, Susumu; Koshimizu, Koichi; Takada, Hiroyuki; Inui, Yuji
PATENT ASSIGNEE(S): Toyo Hakka Kogyo K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09124652	A2	19970513	JP 1995-315710	19951030

PRIORITY APPLN. INFO.: JP 1995-315710 19951030
OTHER SOURCE(S): MARPAT 127:50475
GI

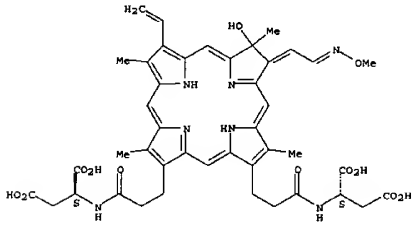


I

AB Title compds. I [R1 = Me, Et, iso-Bu, benzyl, CH2-C6F5; R2 = aspartic acid residue], including isomers contg. interchanged functionalized substituents in rings A and B, are prepd. Thus, protoporphyrin di-Me ester in CHCl3 was irradiated according to R. K. Dinello's procedure (1976) to give 1-hydroxy-2(formylmethylidene)protoporphyrin di-Me ester, which was hydrolyzed in pyridine-methanol to give 42.7% dark green crystals of 1-hydroxy-2-(formylmethylidene)protoporphyrin. The dicyclohexylamine salt of this in CHCl3 was treated with di-Me aspartate hydrochloride in the presence of water-sol. carbodiimide for 5 h to give 17.3% photoprotoporphinyl-6,7-bisaspartic acid tetra-Me ester. This in pyridine was treated with O-methylhydroxylamine hydrochloride followed by hydrolysis to give 13.9% the title compd. I [R1 = Me, R2 = (S)-NHCH(COOH)CH2COOH] (II). II at 0.1 .mu.M sensitized the photooxidn. of dansylmethionine (10 .mu.M in CHCl3) in 4 min vs. <10 min for photofrin

L14 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)
II.
IT **189619-78-1DP**, isomeric mixt. **189619-79-2DP**, isomeric mixt. **189619-80-5DP**, isomeric mixt. **189619-81-6DP**, isomeric mixt. **189619-82-7DP**, isomeric mixt.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of porphyrins as sensitizers in cancer photophysicochem. therapy)
RN 189619-78-1 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-7-[(methoxyimino)ethylidene]-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

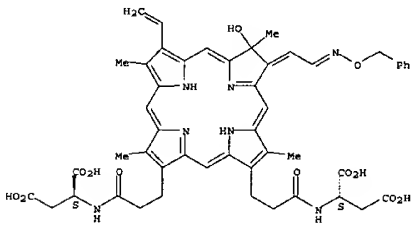
Absolute stereochemistry.
Double bond geometry unknown.



RN 189619-79-2 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7-[(ethoxyimino)ethylidene]-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

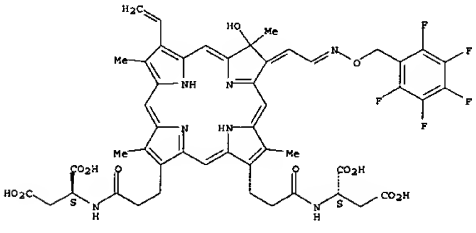
Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

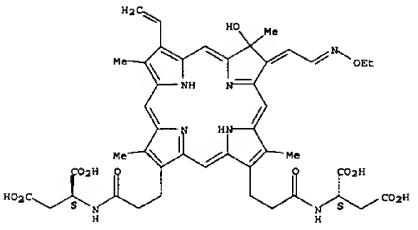


RN 189619-82-7 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-7-[[[(pentafluorophenyl)methoxy]imino]ethylidene]-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

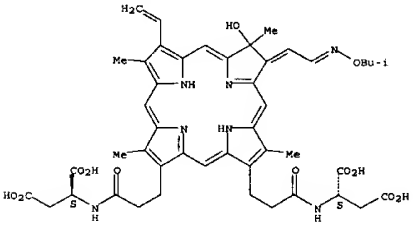


L14 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 189619-80-5 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-7-[[(2-methylpropoxy)imino]ethylidene]-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



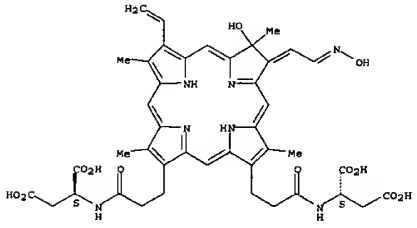
RN 189619-81-6 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-7-[[(phenylmethoxy)imino]ethylidene]-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:264747 CAPLUS
DOCUMENT NUMBER: 126:311893
TITLE: Antitumor effect of second generation photosensitizer ATX-S10 Na(II)
AUTHOR(S): Nakajima, Susumu; Sakata, Isao; Takemura, Takeshi
CORPORATE SOURCE: Asahikawa Med Coll., Asahikawa, 078, Japan
SOURCE: Igaku no Ayumi (1997), 180(10), 689-690
CODEN: IGAYAY; ISSN: 0039-2359
PUBLISHER: Ishiyaku
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB A 2nd generation photosensitizer, 4-hydroxyimino-ethylidene-3-hydroxy-2-vinyl-deuteroporphynyl (IX)-6,7-diaspartic acid (ATX-S10) was divided into
2 regioisomers (I and II) with difference in binding site of NOH:R4 side ring in I and R2 side ring in II. ATX-S10-II exhibited 3 times higher concn. in colon 26 tumor in CDF1 mouse than ATX-S10-I. The concn. was not
so different in normal tissues of liver lung and skeletal muscle. ATX-S10-II disappeared from serum by 12 h, and rapidly from other tissues.
ATX-S10-II exhibited significantly stronger cytotoxic effects against Hela
cells in vitro below 50 .mu.M when argon-dye laser was irradiated at 25 J/cm2. Photodynamic therapy of SCCVII tumor in C3H/He mice exhibited more
excellent therapeutic effect than linac irradn. for 30 Gy.
IT **189357-36-6 189357-37-7**
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(antitumor effect of second generation photosensitizer ATX-S10 Na(II))
RN 189357-36-6 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

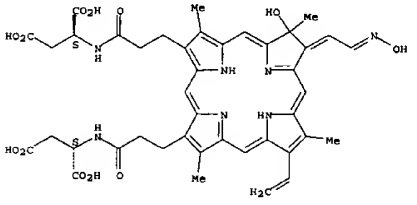
L14 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



●4 Na

RN 189357-37-7 CAPLUS
CN L-Aspartic acid, N,N'-[[13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



●4 Na

L14 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

L14 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:583724 CAPLUS
DOCUMENT NUMBER: 123:78619
TITLE: Acoustic, fluorescent diagnosis of malignant lesions using by HAT-D01 and ATX-S10
AUTHOR(S): Nakakjima, Susumu; Takemura, Takeshi; Sakata, Isao
CORPORATE SOURCE: Division Surgical Operation, Asahikawa Medical College, Asahikawa, 078, Japan
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1995), 2371, 495-500
CODEN: PSISDG; ISSN: 0277-786X
DOCUMENT TYPE: Journal
LANGUAGE: English

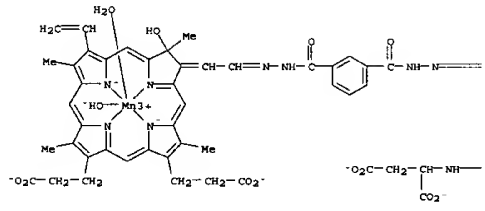
AB We have synthesized approx. 700 kinds of porphyrin derive., studied their side chain structures and affinities for tumor tissues. On the basis of these studies, a tumor localizing photo-chlorine photosensitizer named ATX-S10 has been synthesized for PDT and fluorescent diagnosis of malignant lesions. The nonphotosensitive fluorescent diagnostic agent HAT-D01 has been also synthesized. Both derivs. have their fluorescence near 680 nm which is far from the autofluoreacence of biol. tissue. For detection of tumor tissue, we have developed a new device that can pick up
670-680 nm fluorescence selectively and convert the intensity of fluoreseence to sound. By using this simple new device after ATX-S10 and HAT-D01 administration, we could detect malignant lesions.

IT 155146-90-0, HAT-D01
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(acoustic/fluoreseent diagnosis of malignant lesions using by HAT-D01 and ATX-S10)

RN 155146-90-0 CAPLUS
CN Manganate(6-), aqua[(8S)-7-[[[3-[[[[(8S)-2,18-bis[3-[[(1S)-1,2-dicarboxyethyl]amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]carbonyl]benzoyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]hydroxy-, stereoisomer (9CI) (CA INDEX NAME)

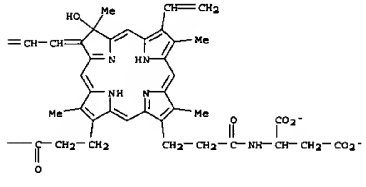
L14 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-A



●6 H+

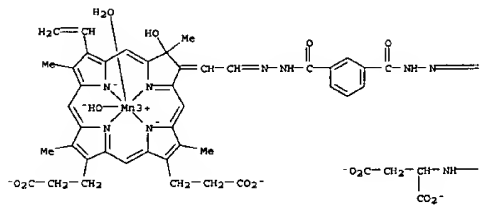
PAGE 1-B



L14 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:583699 CAPLUS
DOCUMENT NUMBER: 123:78601
TITLE: Tumor-localizing fluorescent diagnostic agents without
phototoxicity - HAT-D01
AUTHOR(S): Takemura, Takeshi; Umeuchi, Shiro; Nakajima, Susumu; Sakata, Isao
CORPORATE SOURCE: Research Institute Electronic Science, Hokkaido University, Sapporo, 060, Japan
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1995), 2171, 154-8
CODEN: PSISDG; ISSN: 0277-786X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To develop tumor-localizing fluorescent diagnostic agents without phototoxicity, various heterodimers linked by some spacers between a chlorine deriv. and its Mn or Cu complex were synthesized. The representative agent of them was named HAT-D01 and has a mol. formula of m-phthalyl-{[13,17-bispropanoic acid-3-ethenyl-8-formylethylidene-7-hydroxy-2,7,12,18-tetramethyl-porphyrinate]-manganese (III)}-[3'-ethenyl-8'-formylethylidene-7'-hydroxy-2',7',12',18'-tetramethyl-porphine-13',17'-bispropanoyl aspartic acid]-bishydrazone.
IT 155146-90-0P, HAT-D01
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(tumor-localizing fluorescent diagnostic agent without phototoxicity - HAT-D01)
RN 155146-90-0 CAPLUS
CN Manganate(6-), aqua[(8S)-7-[[[3-[[[[(8S)-2,18-bis[3-[[(1S)-1,2-dicarboxyethyl]amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]carbonyl]benzoyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]hydroxy-, stereoisomer (9CI) (CA INDEX NAME)

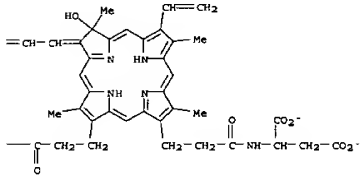
L14 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-A



●6 H+

PAGE 1-B



L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:553331 CAPLUS
DOCUMENT NUMBER: 121:153331
TITLE: Porphyrin dimers and their uses as sensitizers for photodynamic diagnosis and therapy or as contrast agents for NMR
INVENTOR(S): Sakata, Isao; Nakajima, Susumu; Koshimizu, Koichi; Takada, Hiroyuki; Inui, Yasushi
PATENT ASSIGNEE(S): Toyo Hakka Kogyo Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06080671	A2	19940322	JP 1992-276488	19920903

PRIORITY APPLN. INFO.: JP 1992-276488 19920903
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB X:NNHCOACONHN:Y (I) [A = (CH2)n, phenylene; n = 0-8; X, Y = residue of Q1, Q2, or Q3 from which O of ketone or aldehyde is removed; Z = binding site of Q1, Q2, or Q3 with 1; R1, R2 = CH, amino acid residue; R3 = H, CO2Me; M = 2H, Mn, Cu, Zn; the functional groups of ring A in Q1, Q2, or Q3 may be substituted with those of ring B] are useful as sensitizers for photodynamic diagnosis and therapy and as contrast agents for NMR. The porphyrin dimers accumulate in cancer cells and are esp. useful for therapy and diagnosis of cancer. Photoprotoporphyrin di-Me ester was treated with malonic acid dihydrazide at room temp. for 24 h to give 4.6% malonic acid-bis(photoprotoporphyrin)hydrazone tetra-Me ester (II) and 20.3% malonic acid-mono(photoprotoporphyrin di-Me ester)hydrazone. II was hydrolyzed with 10% NaOH in pyridine to give 85.0% malonic acid-bis(photoprotoporphyrin)hydazone, which showed higher photooxidizing activity than Photofrin II.
IT 157204-71-2P 157204-72-3P 157204-73-4P
157204-74-5P 157259-88-6P 157409-61-5P
157409-62-6P 157409-63-7P 157409-64-8P
157440-89-6P 157440-90-9P 157440-91-0P
157440-92-1P 157440-93-2P 157440-94-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)
RN 157204-71-2 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7,7'-[(1,3-dioxo-1,3-propanediyl)bis(2-hydrazinyl-1-ylidene-1,2-ethanediylidene)]bis[12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-, tetramethyl ester (9CI) (CA INDEX NAME)

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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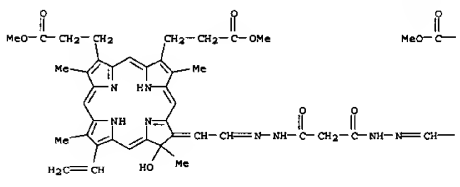

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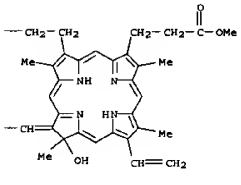

RN 157204-72-3 CAPLUS
CN Hexanedioic acid, bis[[[12-ethenyl-8-hydroxy-2,18-bis[3-[[3-methoxy-1-(methoxycarbonyl)-3-oxopropyl]amino]-3-oxopropyl]-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazide] (9CI) (CA INDEX NAME)

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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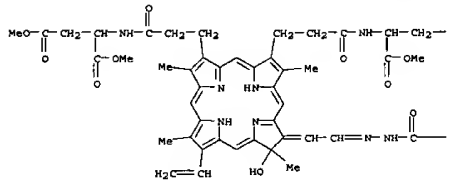

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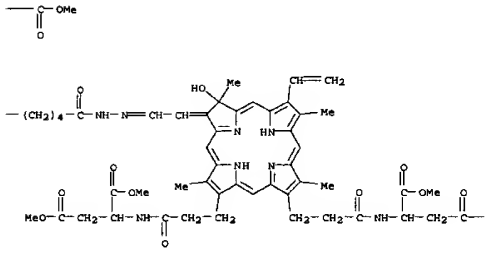

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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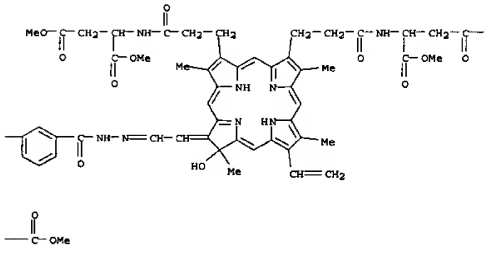

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RN 157204-74-5 CAPLUS
CN 1,4-Benzenedicarboxylic acid, bis[[[12-ethenyl-8-hydroxy-2,18-bis[3-[[3-methoxy-1-(methoxycarbonyl)-3-oxopropyl]amino]-3-oxopropyl]-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazide] (9CI) (CA INDEX NAME)

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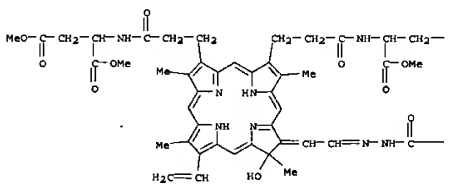

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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RN 157204-73-4 CAPLUS
CN 1,3-Benzenedicarboxylic acid, bis[[[12-ethenyl-8-hydroxy-2,18-bis[3-[[3-methoxy-1-(methoxycarbonyl)-3-oxopropyl]amino]-3-oxopropyl]-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazide] (9CI) (CA INDEX NAME)

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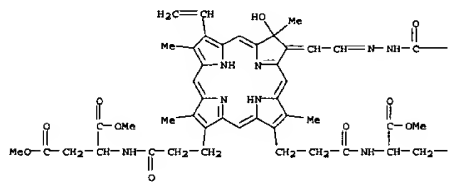

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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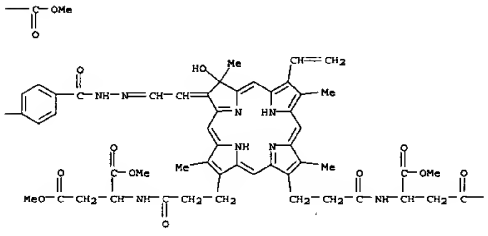

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CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7-[[[6-[[[12-ethenyl-8-hydroxy-2,18-bis[3-[[3-methoxy-1-(methoxycarbonyl)-3-oxopropyl]amino]-3-oxopropyl]-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]-1,6-dioxohexyl]hydrazono]ethylidene]-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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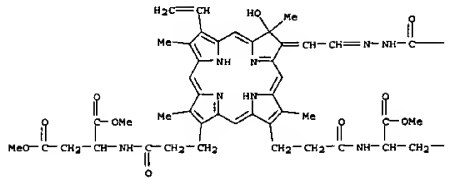

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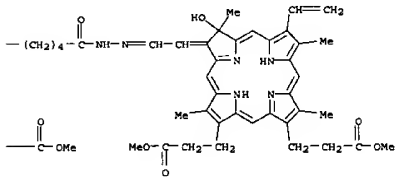

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CN Manganese, [[tetramethyl
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3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato]](2-)-
N21,N22,N23,N24]-, (SP-4-2)- (9CI) (CA INDEX NAME)

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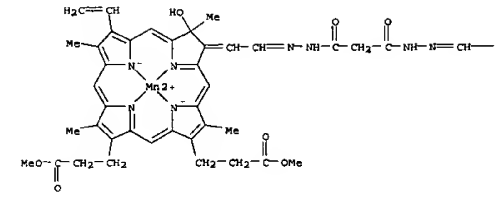

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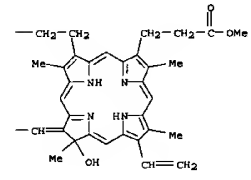

RN 157409-62-6 CAPLUS
CN Copper, [[tetramethyl
7,7'-[(1,3-dioxo-1,3-propanediyl)bis(2-hydrazinyl-1-
ylidene-1,2-ethanediylidene)]bis[12-ethenyl-7,8-dihydro-8-hydroxy-
3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato]](2-)-
N21,N22,N23,N24]-, (SP-4-2)- (9CI) (CA INDEX NAME)

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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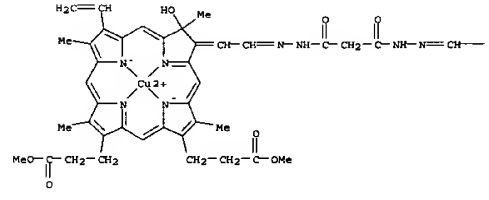

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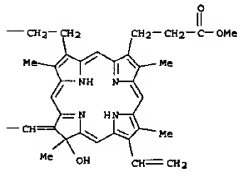

RN 157409-63-7 CAPLUS
CN Manganese, [[hexanedioic acid bis[[[12-ethenyl-8-hydroxy-2,18-bis[3-[[3-
methoxy-2-(methoxycarbonyl)-3-oxopropyl]amino]-3-oxopropyl]-3,8,13,17-

tetramethyl-21H,23H-porphin-7(8H)-ylidene-.kappa.N21,.kappa.N22,.kappa.N23
,.kappa.N24]ethylidene]hydrazidato]](2-)]-, (SP-4-2)- (9CI) (CA INDEX
NAME)

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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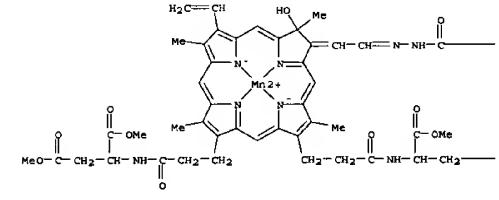

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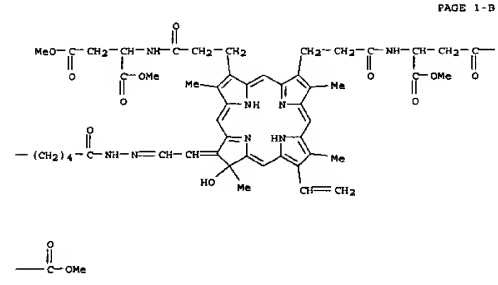

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L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

RN 157409-64-8 CAPLUS
CN Copper, [[hexanedioic acid bis[[[12-ethenyl-8-hydroxy-2,18-bis[3-[[3-methoxy-2-(methoxycarbonyl)-3-oxopropyl]amino]-3-oxopropyl]-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]ethylidene]hydrazidato]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)

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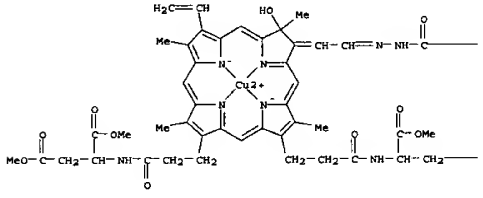

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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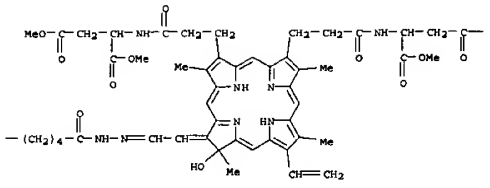

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RN 157440-89-6 CAPLUS
CN Manganese, [dimethyl 12-ethenyl-7-[[[6-[[[12-ethenyl-8-hydroxy-2,18-bis[3-[[3-methoxy-1-(methoxycarbonyl)-3-oxopropyl]amino]-3-oxopropyl]-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]-1,6-dioxohexyl]hydrazono]ethylidene]-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(2-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, (SP-4-2)- (9CI) (CA INDEX NAME)

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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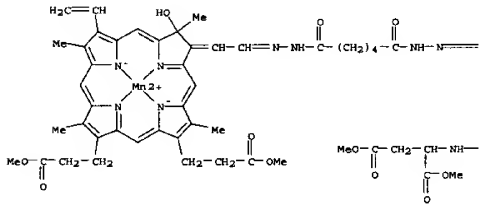

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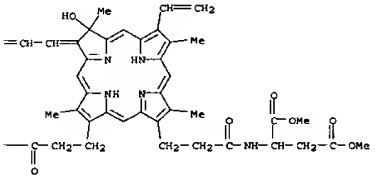

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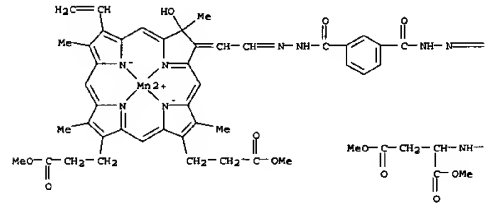

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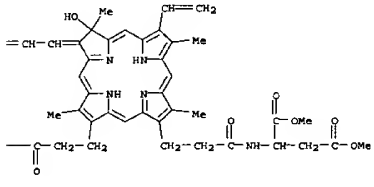

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L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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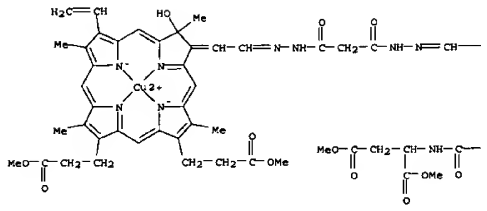

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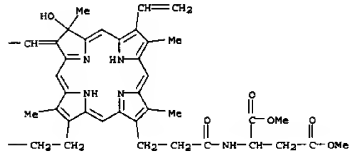

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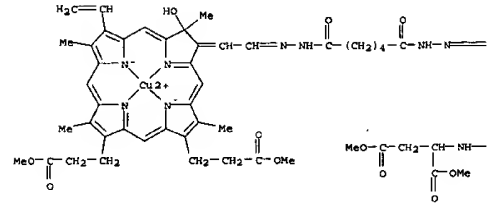

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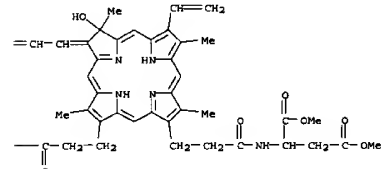

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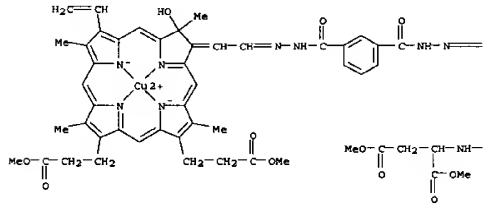

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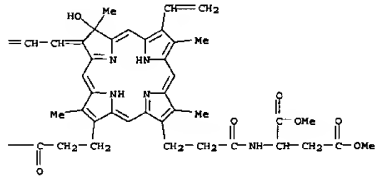

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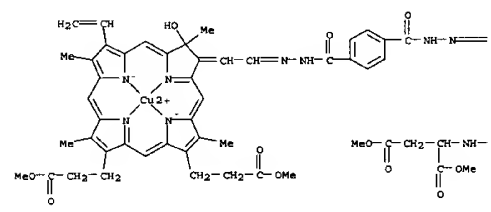

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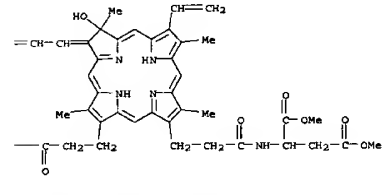
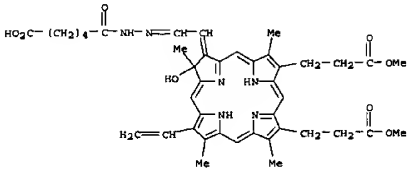
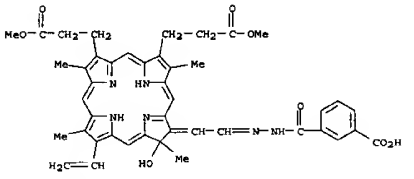


IT 157204-78-9P 157204-79-0P 157204-80-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with photoprotoporphyrin deriv.)
RN 157204-78-9 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7-[[(5-carboxy-1-oxopentyl)hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-, .alpha.,.alpha.'-dimethyl ester (9CI) (CA INDEX NAME)

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

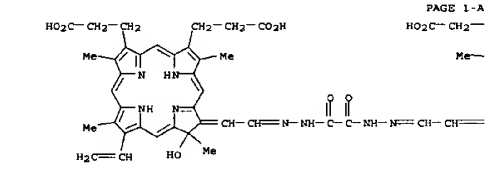


RN 157204-79-0 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7-[[(3-carboxybenzoyl)hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-, .alpha.,.alpha.'-dimethyl ester (9CI) (CA INDEX NAME)



RN 157204-80-3 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7-[[(4-carboxybenzoyl)hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-, .alpha.,.alpha.'-dimethyl ester (9CI) (CA INDEX NAME)

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)
7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)



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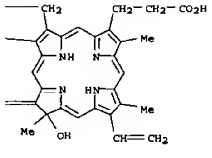
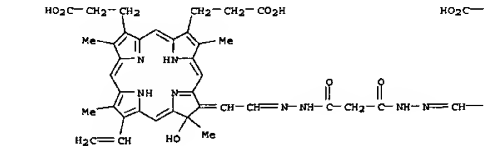
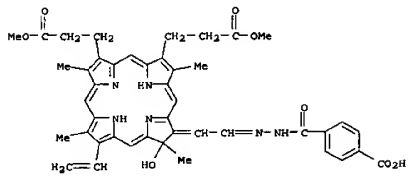


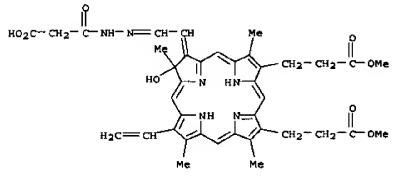
RN 157204-66-5 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7,7'-[(1,3-dioxo-1,3-propanediyl)bis(2-hydrazinyl-1-ylidene-1,2-ethanediylidene)]bis[12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)



L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



IT 157204-77-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with photoprotoporphyrin di-Me ester)
RN 157204-77-8 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7-[[[carboxyacetyl)hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-, .alpha.,.alpha.'-dimethyl ester (9CI) (CA INDEX NAME)



IT 157204-65-4P 157204-66-5P 157204-67-6P
157204-68-7P 157232-03-6P 157232-06-9P
157409-55-7P 157409-56-8P 157440-80-7P
157440-81-8P 157440-82-9P 157440-83-0P
157440-84-1P 157440-85-2P 157440-86-3P
157440-87-4P 157440-88-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as photosensitizer and contrast agent, for cancer diagnosis and therapy)
RN 157204-65-4 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7,7'-[(1,2-dioxo-1,2-ethanediyl)bis(2-hydrazinyl-1-ylidene-1,2-ethanediylidene)]bis[12-ethenyl-

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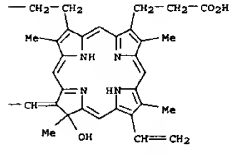

RN 157204-67-6 CAPLUS
CN 1,3-Benzenedicarboxylic acid, bis[[[2,18-bis(3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazide] (9CI) (CA INDEX NAME)

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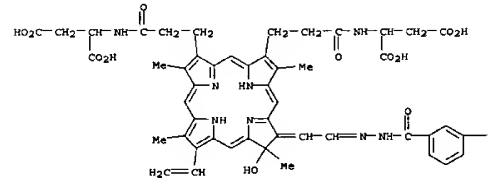

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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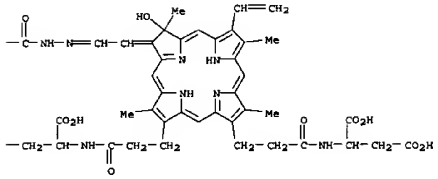

RN 157204-68-7 CAPLUS
CN 1,4-Benzenedicarboxylic acid, bis[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazide] (9CI) (CA INDEX NAME)

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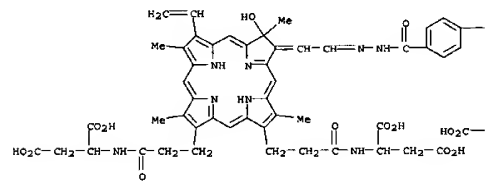

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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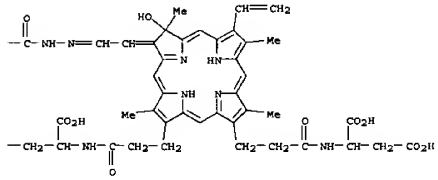

RN 157232-06-9 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7-[[[6-[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]-1,6-dioxohexyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)

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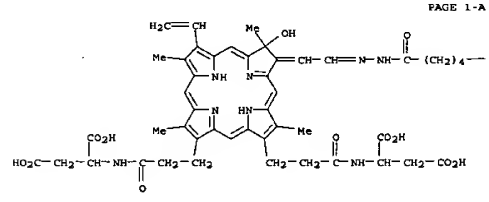

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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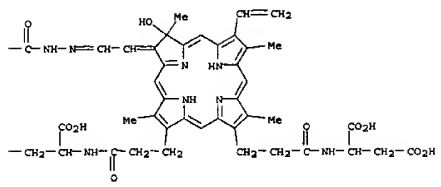

RN 157232-03-6 CAPLUS
CN Hexanedioic acid, bis[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazide] (9CI) (CA INDEX NAME)

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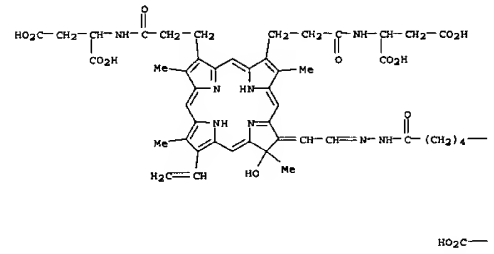

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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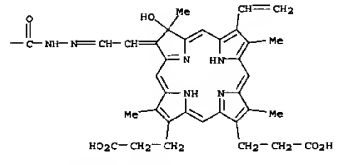

RN 157409-55-7 CAPLUS
CN Manganate(4-), [7-[[[3-[[[2,18-bis(2-carboxyethyl)-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]-1,3-dioxopropyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(6-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, tetrahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

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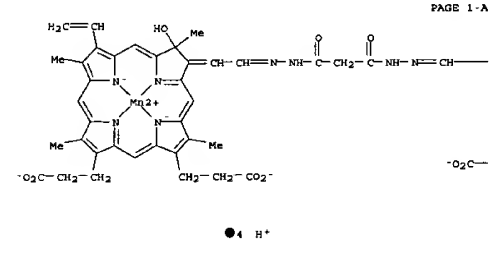

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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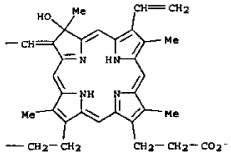

RN 157409-56-8 CAPLUS
CN Cuprate(4-),
[[7,7'-[(1,3-dioxo-1,3-propanediyl)bis(2-hydrazinyl-1-ylidene-1,2-ethanediylidene)]bis[12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato]](6-)-N21,N22,N23,N24]-, tetrahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

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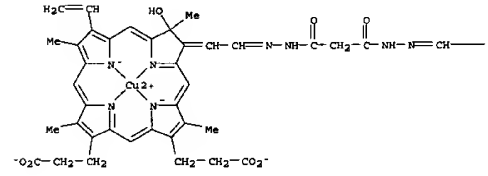

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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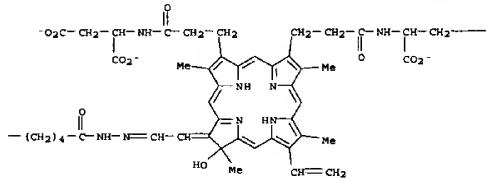

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●8 H+

RN 157440-81-8 CAPLUS
CN Cuprate(8-), [[hexanedioic acid
[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]ethylidene]hydrazidato
[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazidato](10-)]-, octahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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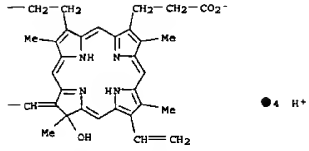

●4 H+

RN 157440-80-7 CAPLUS
CN Manganate(8-), [[hexanedioic acid
[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]ethylidene]hydrazidato
[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazidato](10-)]-, octahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

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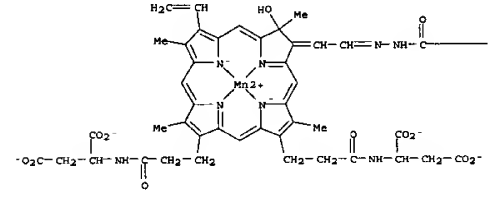

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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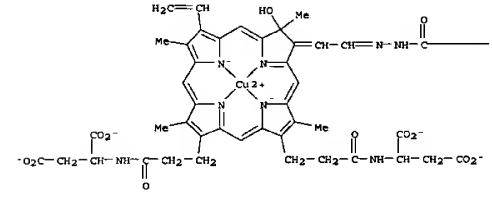

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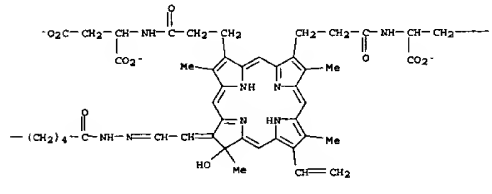

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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$-CO_2^-$

●8 H^+

RN 157440-82-9 CAPLUS
CN Manganate(6-), [7-[[(6-[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]-1,6-dioxohexyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, hexahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

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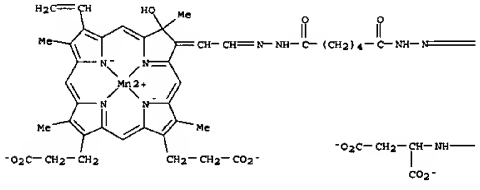

●6 H^+

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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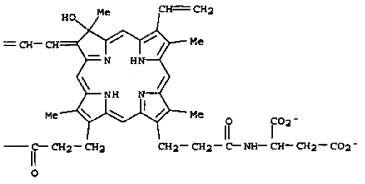

RN 157440-83-0 CAPLUS
CN Manganate(6-), [7-[[[3-[[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]carbonyl]benzoyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, hexahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

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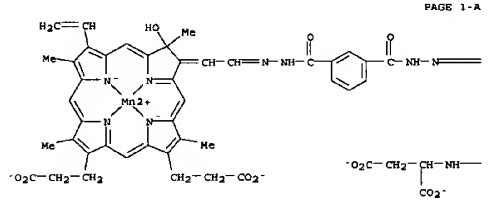

●6 H^+

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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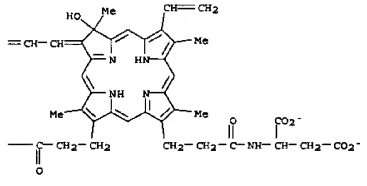

RN 157440-84-1 CAPLUS
CN Manganate(6-), [7-[[[4-[[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]carbonyl]benzoyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, hexahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

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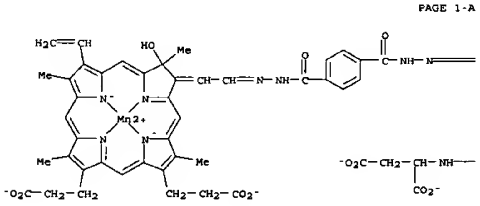

●6 H^+

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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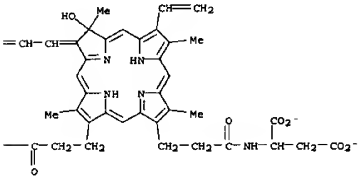

RN 157440-85-2 CAPLUS
CN Cuprate(6-), [7-[[[3-[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]-1,3-dioxopropyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, hexahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

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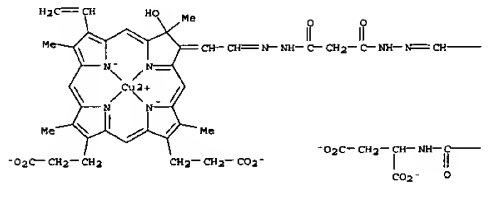

●6 H^+

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

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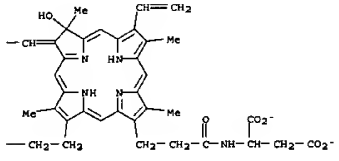
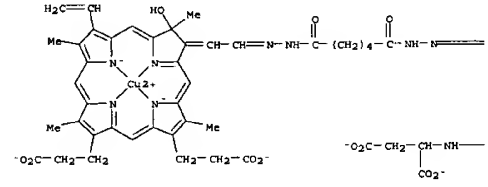


RN 157440-86-3 CAPLUS
CN Cuprate(6-), [7-[[[6-[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]-1,6-dioxohexyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, hexahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

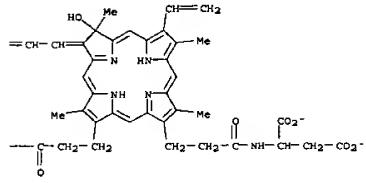
PAGE 1-A



●6 H+

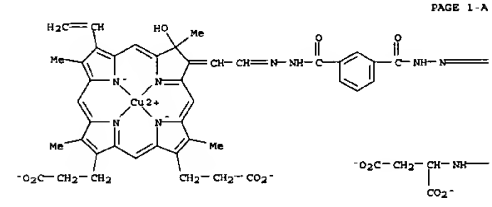
L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-B



RN 157440-87-4 CAPLUS
CN Cuprate(6-), [7-[[[3-[[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]carbonyl]benzoyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, hexahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

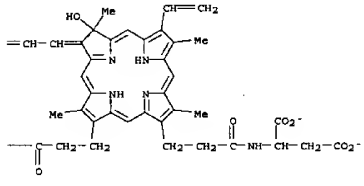
PAGE 1-A



●6 H+

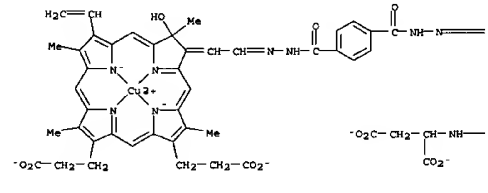
L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-B



RN 157440-88-5 CAPLUS
CN Cuprate(6-), [7-[[[4-[[[[2,18-bis[3-[(1,2-dicarboxyethyl)amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]carbonyl]benzoyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]-, hexahydrogen, (SP-4-2)- (9CI) (CA INDEX NAME)

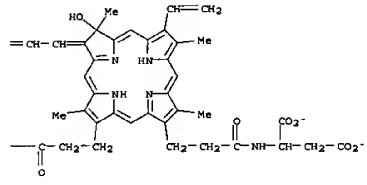
PAGE 1-A



●6 H+

L14 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-B



L14 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2
ACCESSION NUMBER: 1994:293125 CAPLUS
DOCUMENT NUMBER: 120:293125
TITLE: Tumor-localizing fluorescent diagnostic agents without phototoxicity
AUTHOR(S): Takemura, Takeshi; Nakajima, Susumu; Sakata, Isao
CORPORATE SOURCE: Res. Inst. Electron. Sci., Hokkaido Univ., Sapporo, 060, Japan
SOURCE: Photochemistry and Photobiology (1994), 59(3), 366-70
CODEN: PHCBAP; ISSN: 0031-8655
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To develop tumor-localizing fluorescent diagnostic agents without phototoxicity, various heterodimers linked by some spacers between a chlorine deriv. and its Mn or Cu complex were synthesized. The representative agent of them was named HAT-D01 and has a mol. formula of m-phthalyl-{[13,17-bispropanoic acid-3-ethenyl-8-formylethylidene-7-hydroxy-2,7,12,18-tetramethyl-porphyrinate]-manganese (III)}-[3'-ethenyl-8'-formylethylidene-7'-hydroxy-2',7',12',18'-tetramethylporphine-13',17'-bispropanoyl aspartic acid]-bishydrazone.

IT **154933-04-7 154933-05-8 155146-90-0, HAT-D 01**
RL: BIOL (Biological study)
(fluorescent imaging with, of tumors)

RN 154933-04-7 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7-[[[3-[[[[(8S)-2,18-bis[3-[[(1S)-1,2-dicarboxyethyl]amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,17-trimethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]carbonyl]benzoyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-, (8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

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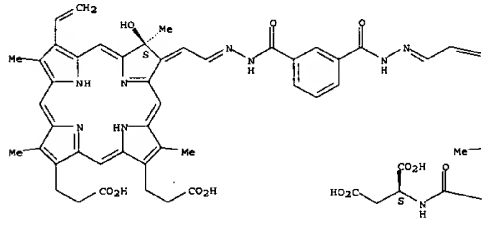

L14 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2
(Continued)

nzoyl]hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(8-)-.kappa.N21,.kappa.N22,.kappa.N23,.kappa.N24]hydroxy-, stereoisomer (9CI) (CA INDEX NAME)

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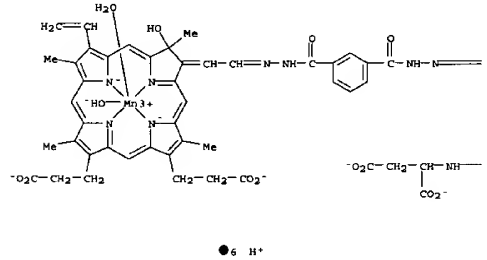
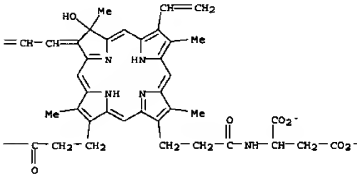


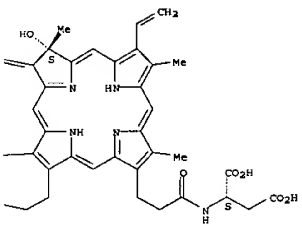
●6 H+

PAGE 1-B



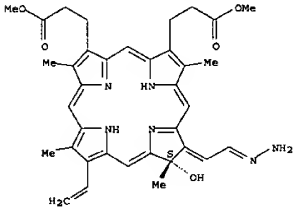
L14 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2
(Continued)

PAGE 1-B



RN 154933-05-8 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7-(hydrazonoethylidene)-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-, dimethyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



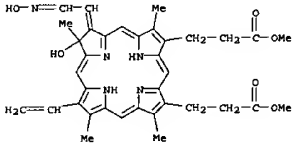
RN 155146-90-0 CAPLUS
CN Manganate(6-), aqua[(8S)-7-[[[3-[[[[(8S)-2,18-bis[3-[[(1S)-1,2-dicarboxyethyl]amino]-3-oxopropyl]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]carbonyl]be

L14 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:579343 CAPLUS
DOCUMENT NUMBER: 121:179343
TITLE: Photosensitization of oximic analogs of protoporphyrin to the photodegradation of 2',3'-propylidene guanosine
AUTHOR(S): Shan, D. X.; Suzuki, Mikio; Kai, Shigeo
CORPORATE SOURCE: Pharm. Coll., Zhejiang Med. Univ., Hangzhou, 310006, Peop. Rep. China
SOURCE: Yaoxue Xuebao (1994), 29(3), 180-4
CODEN: YHHPAL; ISSN: 0513-4870
DOCUMENT TYPE: Journal
LANGUAGE: English

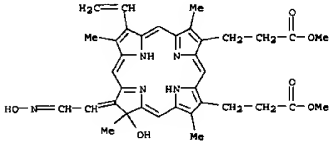
AB Some oxime analogs of protoporphyrin were prepd. They all show max. absorption at 670 nm. Illumination of 2',3'-isopropylideneguanosine (IpGu) with a red light in the presence of oxime derivs. results in high photodegrdn. of IpGu which is twice as large as that of hematoporphyrin.

IT **28383-51-9 157828-58-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and photodegn. of isopropylideneguanosine in presence of)

RN 28383-51-9 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7,8-dihydro-8-hydroxy-7-[2-(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)



RN 157828-58-5 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 13-ethenyl-7,8-dihydro-7-hydroxy-8-[(hydroxyimino)ethylidene]-3,7,12,17-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)



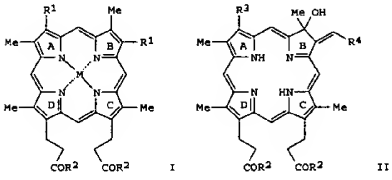
L14 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

L14 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:603241 CAPLUS
DOCUMENT NUMBER: 119:203241
TITLE: Preparation of porphyrin compounds as photosensitizers for photodynamic therapy (PDT)
INVENTOR(S): Sakata, Isao; Nakajima, Susumu; Koshimizu, Koichi; Takada, Hiroyuki; Inui, Yasushi
PATENT ASSIGNEE(S): Toyo Hakka Kogyo Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05097857	A2	19930420	JP 1991-323597	19911004
JP 3191233	B2	20010723		

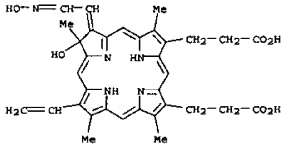
PRIORITY APPLN. INFO.: JP 1991-323597 19911004
OTHER SOURCE(S): MARPAT 119:203241
GI



AB Porphyrin deriva. or their metal complexes [I; R1 = CH(OR)Me, wherein R = alkyl, R2 = residue derived by removing H from an amino acid; M = 2H, Ga, Zn, Pd, In, Sn] and porphyrin deriva. [II; R2 = OH, residue derived by removing H from an amino sugar or amino acid; R3 = CH:CH2, CH(OR)Me (wherein R = alkyl), CHO, C:NOH, CH2OH; R4 = CH:X, C(OH)OSO2Na, CH(SCH2CO2H)2, CH(OR)2, benzothiazolyl; wherein X = O, C(CN)2, NN, C(Y)2; wherein N = OH, O2CMe, NHE; wherein E = H, alkyl, COC5H4N, CONH2, CSNH2, CO2Me, COCH2NClMe2, C(NH2):NH; wherein Y = H, alkyl; Z = NO2, COF, or YZ = CONHCONHCO) or their regio isomers in which the functional groups of the side chains in pyrrole ring A and B are exchanged with each other, useful for photodynamic therapy of cancers, are prepd. Thus, hydrobromination of protoporphyrin di-Me ester by 10% HBr in AcOH followed by etherification with hexyl alc., sapon. with 2 N KOH/EtOH, and acidification with 1 N aq. HCl gave 2,4-bis(1-hexyloxyethyl)deuteroporphyrin which was converted into dicyclohexylamine salt and then condensed with H-Asp(OMe)-OMe.HCl in the presence of 1-ethyl-2-(3-diethylaminopropyl)carbodiimide and MeCN-CHCl3 to give, after sapon. with 2 N KOH/EtOH, 40.6% (overall yield) I (R1 = 1-hexyloxyethyl, R2 = Asp-OH, M = 2H) (III). III in vitro inhibited .apprx.100% the proliferation of HGC-27 cells at 10-4, 10-5, and 10-6 M under the cold spot irradn. with a halogen lamp PICL-SX vs. 90, 35, and 20%, resp. without the irradn. Approx. 40 I were prepd.

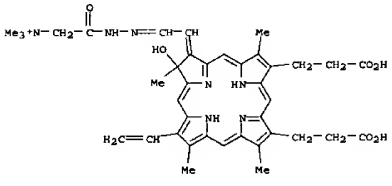
IT **150582-63-1P 150582-65-3P 150582-66-4P**
150582-69-7P 150582-70-0P 150582-71-1P
150582-72-2P 150582-73-3P 150582-75-5P
150582-76-6P 150582-88-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as photosensitizer for cancer photodynamic therapy)

RN 150582-63-1 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7,8-dihydro-8-hydroxy-7-[(hydroxyimino)ethylidene]-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)

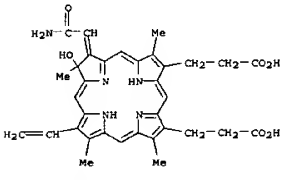


RN 150582-65-3 CAPLUS
CN Ethanaminium, 2-[[[2,18-bis(2-carboxyethyl)-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl-21H,23H-porphin-7(8H)-ylidene]ethylidene]hydrazino]-N,N,N-trimethyl-2-oxo-, chloride (9CI) (CA INDEX NAME)

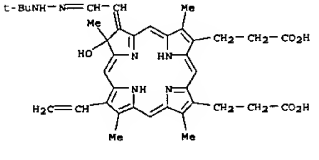
L14 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 150582-66-4 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7-(2-amino-2-oxoethylidene)-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)

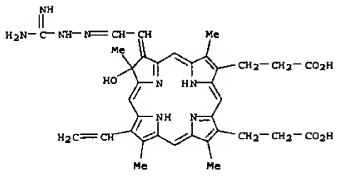


RN 150582-69-7 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7-[[(1,1-dimethylethyl)hydrazono]ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)

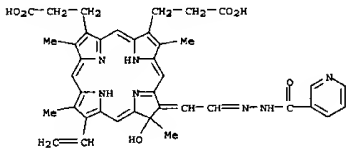


L14 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

RN 150582-70-0 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid,
7-[[(aminoiminomethyl)hydrazono]et
hylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI)
(CA INDEX NAME)



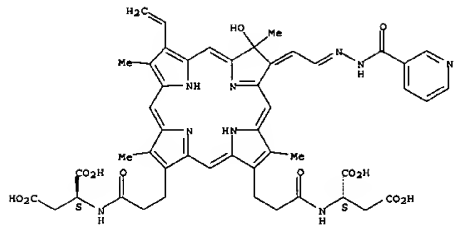
RN 150582-71-1 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-7-[[(3-pyridinylcarbonyl)hydrazono]ethylidene]- (9CI) (CA INDEX NAME)



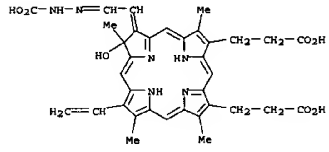
RN 150582-72-2 CAPLUS
CN L-Aspartic acid, N,N'-[[12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl-7-[[(3-pyridinylcarbonyl)hydrazono]ethylidene]-21H,23H-porphine-2,18-diyl]bis(1-oxo-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)

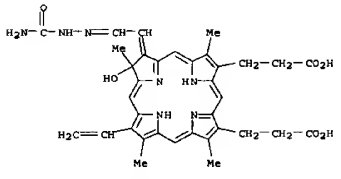


RN 150582-73-3 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid, 7-[(carboxyhydrazono)ethylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)

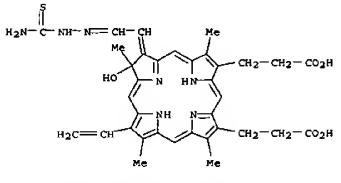


RN 150582-75-5 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid,
7-[[(aminocarbonyl)hydrazono]ethyl
idene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI) (CA INDEX NAME)

L14 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 150582-76-6 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid,
7-[[(aminothioxomethyl)hydrazono]e
thylidene]-12-ethenyl-7,8-dihydro-8-hydroxy-3,8,13,17-tetramethyl- (9CI)
(CA INDEX NAME)



RN 150582-88-0 CAPLUS
CN 21H,23H-Porphine-2,18-dipropanoic acid,
7-[[1,2-dideoxy-1-(hydroxyimino)-D-
glucitol-2-yl]imino]-12-ethenyl-8-hydroxy-3,8,13,17-tetramethyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L14 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2003 ACS (Continued)